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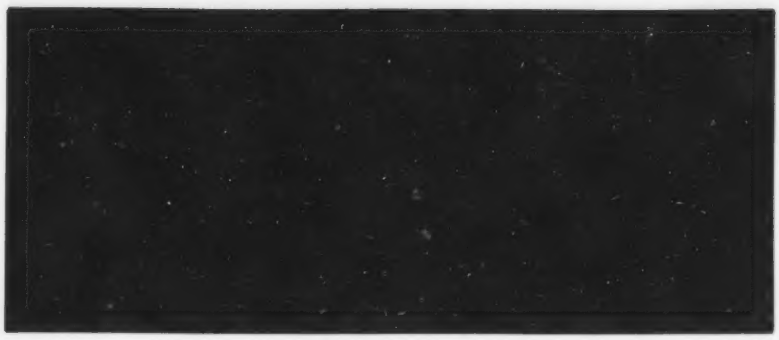

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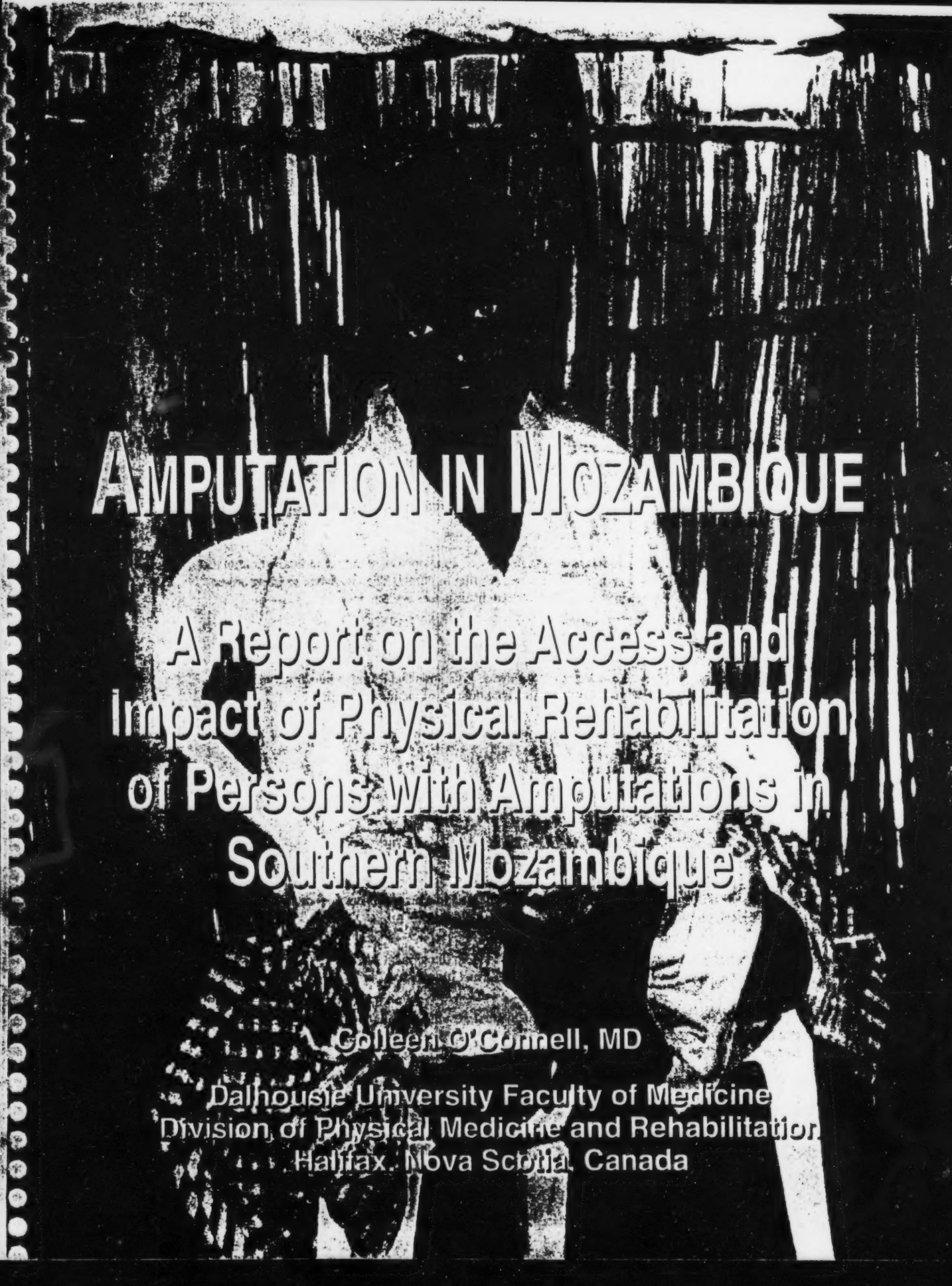
AMPUTATION IN MOZAMBIQUE

Report by Colleen O'Connell, MD
Dalhousie University, Faculty of Medicine

Fall 1999



AMPUTATION IN MOZAMBIQUE

A Report on the Access and Impact of Physical Rehabilitation of Persons with Amputations in Southern Mozambique

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Acronyms and Definitions

ADEMIMO – Association of Disabled Mozambican Soldiers; this organization was formed in 1992 and represents both Fremlimo and Renamo soldiers.

ADEMO – Association of Disabled Mozambicans; this organization was founded in 1989 to represent all disabled civilians

CMCM – Mozambique Campaign to Ban Landmines (Campaigne Moçambicanos Contre Minas)

FIM – Functional Independence Measure

HI – Handicap International: a French-based not-for profit organization working in demining and physical rehabilitation.

ICRC – International Committee of the Red Cross; an international humanitarian institution that acts as a neutral intermediary in the event of armed conflict or unrest. They endeavor to bring protection and assistance to victims of conflict and internal disturbances and tension.

PHR - Physicians for Human Rights

POWER – Prosthetics and Orthotics Worldwide Education and Relief; a humanitarian, non-profit development organisation working for the rehabilitation of victims of conflict.

RNL – Reintegration to Normal Living index

UNDP – United Nations Development Program

UNHCR – United Nations High Commission for Refugees

USAID - United States Agency for International Development

Impairment - In the context of health experience, an impairment is any loss or abnormality of psychological, physiological, or anatomical structure or function.

Disability - any restriction or lack (resulting from an impairment) of ability to perform an activity in a manner or within the range considered normal for a human being.

Handicap - a disadvantage for a given individual, resulting from an impairment or a disability, that limits or prevents the fulfilment of a role that is normal (depending on age, sex, and social and cultural factors) for that individual.

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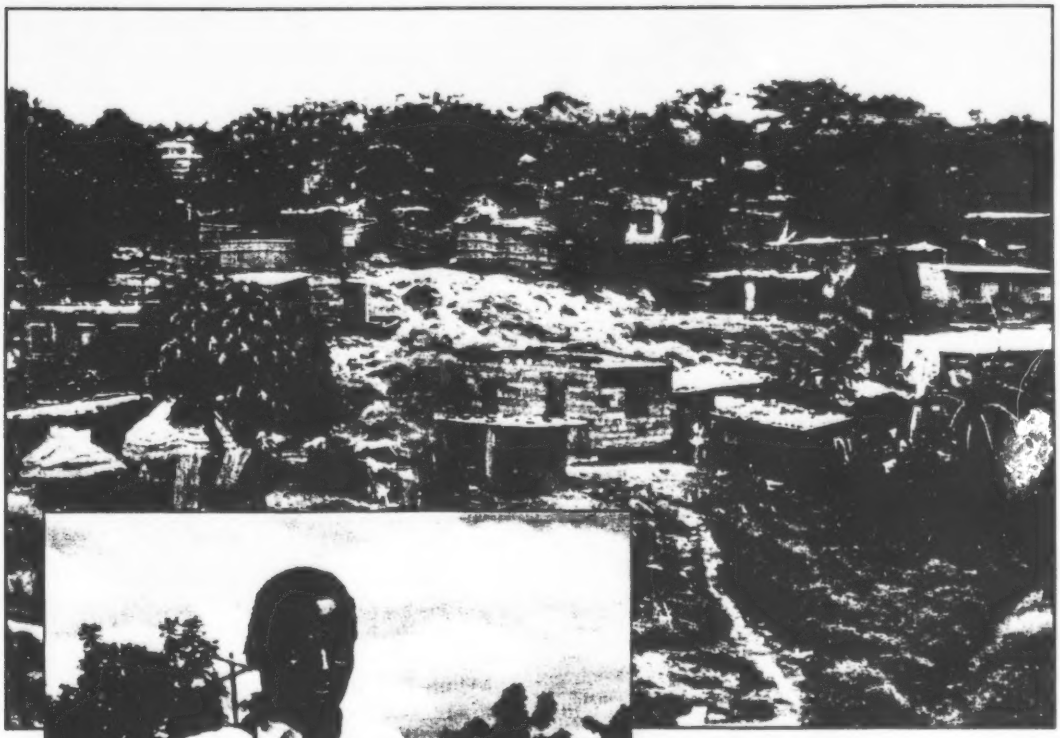
Foreword

The views and recommendations in this report are those of the author, and are not to be interpreted as having been considered or accepted by the Canadian Centre for Foreign Policy Development, the Queen Elizabeth II Health Sciences Centre, or the Division of Physical Medicine and Rehabilitation of Dalhousie University Faculty of Medicine.

The author wishes to express her appreciation for the cooperation and assistance received during this study from the Canadian Centre for Foreign Policy Development and Department of Foreign Affairs and International Trade, POWER-Mozambique, the Maputo provincial Ministry for Social Action, the Moamba district Red Cross, ADEMIMO, ADEMO, the Canadian consulate in Mozambique, Drs. Tom Loane, Lee Kirby, and Ron Stewart, NovaHealth International, the Queen Elizabeth II Research Fund, and the Division of Physical Medicine and Rehabilitation of the Dalhousie University Faculty of Medicine.

Special thanks and recognition goes to Mr. Max Deneu, Country Director of POWER-Mozambique, and all the Maputo staff at POWER-Mozambique without who's assistance this project would not have been possible.

Finally, deepest gratitude to my co-researchers in the field; Jeff Campbell, Stephen Adams, and Domingos Sambo.



Disability in the Developing World

"The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition."

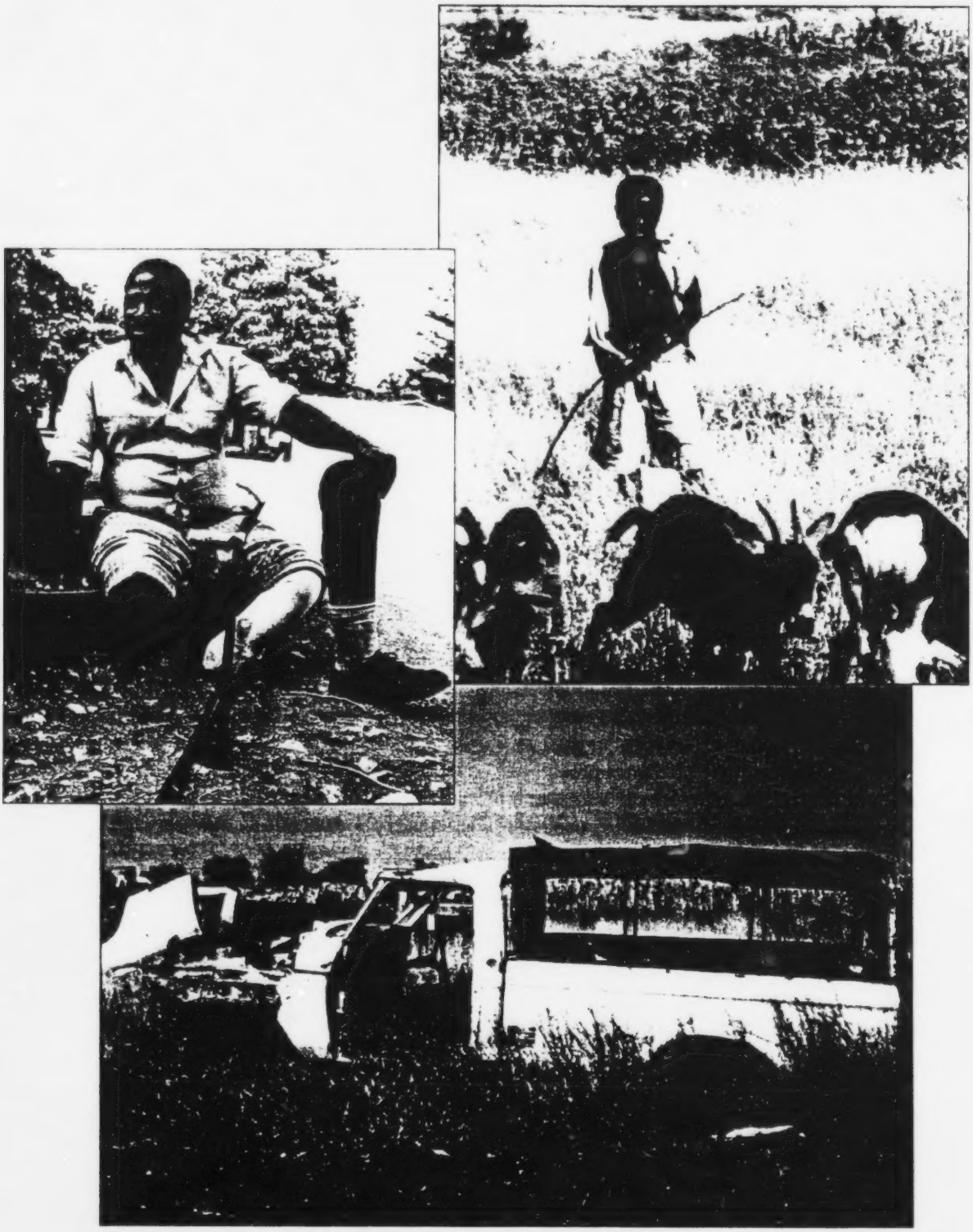
- World Health Organization Constitution

The prevalence of physical disability in the developing world is high; one report cites that in most developing countries the disabled compromise as much as 10% of the population.[1] Incidence is felt to be much higher, although acquiring accurate statistics on disability is frought with difficulties in most developing countries. Malnutrition, conflict, disease, and poor health care are major causes of both increased incidence of disability and decreased survival of those less physically adapted to the harsh environment of a developing country.[2]

Persons with disability face lifelong battles in countries where access to rehabilitation services are minimal and the consequence of physical impairment may be attitudinal, environmental, and systemic barriers to participation in society.[1] Farming, fishing, herding and gathering are for many people the only means of supporting themselves and their families.[3] The impact of a physical impairment on ones ability to participate in these vital activities is signifigant. It has been reported that in many developing societies, disabled members are rejected from their homes and communities; another mouth to feed while not contributing to the family's support.[4]

It may be intuitive that rehabilitation for the physically disabled is beneficial, both in terms of functional ability and quality of life.[5,6] However, in developing countries rehabilitation services are often not available and treatment is often hampered by lack of knowledge of how to best focus rehabilitative efforts.[7]

In recent years there has been increased international attention on one particular group of disabled individuals; those injured by landmines. As part of the global movement to ban landmines, there is focus on the human costs, which inevitably includes those killed and maimed by these weapons.[7,8] There now arises the opportunity to expose and evaluate the situation faced by disabled persons in developing countries, both landmine-injured and others who seek to survive and flourish despite disablility.



The Issue of Landmines

There are an estimated 110 million landmines scattered in over 60 countries, most of them in the developing world.[3,4,9,10,11] Landmines do not distinguish between the footfalls of soldiers and children, and continue to injure and kill long after conflict has ended. Worldwide over 2000 people are killed or wounded by a landmine explosion each month.[3] Mine explosions cause injury either directly by the blast or by driving dirt and debris into the tissue and bone, causing infections and requiring high-level amputations.[12,13] Injuries are complex, involving crushes, burns, penetrating fragments and incisions. The fifty percent of victims who live to make it to hospital often require extensive and prolonged medical care and rehabilitation, which is often not available from already poorly-funded and over-stretched health services.[15]

Currently there are at least 250,000 persons disabled by landmines in the world.[3] The six most severely affected countries; Afghanistan, Angola, Cambodia, Mozambique, Croatia, and Bosnia-Herzegovina, harbor almost one-third of the worlds landmines.[3,15] There is a disproportionate impact on the worlds poorest societies and often the most vulnerable members of those societies. Basic neccessity forces farmers, refugees, and the displaced to enter mined areas for food, water, firewood, thatch, and to graze livestock.[3] These same people rely on physical fitness for survival and can least afford the care necessary to treat landmine injuries.

The effects of landmines go beyond physical impairment. It has been reported that amputee survivors experience loss of income, feelings of abandonment and depression, and are 40% more likely to experience difficulty providing food for their families.[7,14] Amputees are often viewed by their families and communities as unproductive.[17] Contributing to the problem may be the lack of prostheses which, in one survey, 60% of the amputees had to do without.[16] Most developing countries do not have adequate rehabilitation or prosthetic fabrication centres to meet the needs of the population,[4,7,15,16] and rehabilitation services in the countries most severely affected by landmines only cover an estimated 15-20 percent of the needs of the physically disabled.[10]

The International Committee of the Red Cross has stated that the services of medical professionals are needed to help reduce the physical and mental trauma caused by mines.[9,10] Medical professionals and others involved in caring for the injured have emphasized the need for epidemiological information on mine injuries and the need to gather objective data on the short- and long-term socioeconomic consequences of landmines.[10] Steps are needed to improve the situation of mine-injury survivors, which includes better medical attention in the short run and help to adapt to their impairment and rebuild their lives.

As the issue of landmines becomes an increasingly important international issue and more funds are targeted towards landmine-related causes, the need for increased assistance for landmine-injury survivors should not be overlooked. However, while addressing the needs of persons with an amputation due to a landmine injury, one must recognize that all persons with physcial impairment in a similar environment would potentially encounter similar challenges. For that reason, investigation into disability issues and subsequent interventions should be inclusive of all persons with a particular impairment, and not restricted to those with a particular etiology of impairment. This was the guiding principle in developing this project, implementing the objectives, and formulating our recommendations.

Project Objectives

This project was undertaken to determine the accessibility and use of rehabilitation and prosthetic services in a developing country and demonstrate the impact of such services through evaluation of functional, quality of life, and socioeconomic outcomes of persons with amputations. Ultimately, this work will help in the planning and delivery of rehabilitation services in a developing country. As part of the overall project goals, there were a number of related objectives as outlined below:

- Facilitate participatory focus groups to generate qualitative data on rehabilitative care and return-to-society issues of persons with an amputation in a developing country.
- Determine health-related, functional, and socioeconomic outcomes of persons with an amputation and compare outcomes for prosthetic and rehabilitative interventions.
- Identify policy options for Canadian foreign-policy development in terms of physical rehabilitation of persons with an amputation and landmine injury.
- Establish a visual library of impairments, disability and handicap caused by landmine injury in Mozambique, including prosthetic and adaptive aids implemented to improve function.
- Establish linkages with partner organizations in Canada and Mozambique, including Dalhousie University Faculty of Medicine and the Canadian Centre for Foreign Policy Development, to cooperatively facilitate ongoing efforts in physical rehabilitation.
- Heighten awareness and support for the issues of landmine survivors, health of the disabled in developing countries, and Canada's role in international development through presentation of the research and experience at local, national and international meetings of medical, development, and political organizations.

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Project Site: Mozambique

Background

Mozambique was the country selected in which to carry out this project. Located in southeast Africa, it has an area of 801,590 sq km and 2470 km of coastline. It is divided into ten provinces; Maputo, Gaza, Sofala, Manica, Inhambane, Zambezia, Tete, Nampula, Niassa and Cabo Delgado. There are 16 main ethnic groups, the largest being the Makua, Makonde, Sena and Shangaan. The official language of the country is Portuguese, but is generally only spoken by about 25% of the population. Indigenous languages belong to the Bantu family, with approximately 60 distinct languages and dialects spoken in Mozambique.

It is one of the least developed countries in the world, ranking 166 in the UNDP Human Development Report 1998. Under five mortality is 214 per 1000 live births (1996) and maternal mortality 1512 per 100,000 live births (1989-1995). Life expectancy at birth is 46.3 years (1995). Sixty percent of the 18 million population are illiterate, 37% have no access to safe drinking water (1990-96) and 61% have no access to health services (1990-95). Eighty-three percent of the labor force is agriculture based. In 1995 the Human Poverty Index was 48.5%.[18]

Mozambique today is a fraction of the country that only thirty years ago attracted a greater volume of tourists than South Africa and Rhodesia (Zimbabwe) combined. The country was considered the third most industrialized country in Africa. Thirty years of near continuous conflict has left Mozambique among the ten poorest countries on earth.[18]

Mozambique's battle for independence from Portuguese rule began with the amalgamation of a number of small-time liberation groups in 1963 to form FRELIMO under the militant leadership of Eduardo Mondlane. Facing attacks from FRELIMO and concurrent political changes in Europe, the Portuguese government agreed to the Lusaka Accord in September 1974 giving Mozambique its independence and transfering power to the Marxist FRELIMO party.

The country then entered into a twenty year civil war. RENAMO, the guerrila army which initiated the war, was founded and supported by Rhodesia, South Africa, and right-wing American organizations which sought to promote a capitalist alternative to the socialist ruling party. The war claimed 100,000 lives and disrupted the countryside to the extent that roughly one-third of the population fled to the cities and neighboring countries. An estimated 800 hospitals and 2500 schools were destroyed. Facing pressure from overseas aid donors, FRELIMO changed its policy in 1990 to allow multi-party elections and by 1992 a cease-fire agreement was signed. Mozambique has been at peace since and has remained under FRELIMO rule following the first democratic elections in 1994. The United Nations reports that as of 1994, the large majority of war refugees and internally displaced had returned to their homes and communities.

Landmines

Extensive random and indiscriminate use of landmines during the years of conflict has left this country with one of the most severe landmine crises in the world.[3,4,14] Landmines were laid to deny civilians access to water, fields, and fishing. Wells, health posts, schools and factories were common targets. Landmines were also used to protect roads, railways, and dams, and laid around the perimeters of villages and hospitals.[14] The signing of the peace

accord brought and end to the fighting, but despite seven years of peace, many Mozambicans continue to risk injury and death regularly as they venture to obtain food and water, or access farmland and homes.

By 1996, the United Nations Accelerated Demining Programme had recorded over 1650 mined areas in ten provinces. Few accurate records were kept on the location of deployed landmines, and the current estimate of the number of mines in Mozambique is one million, although this continues to be debated amongst the demining community.

Disability

In 1995 UNICEF, in cooperation with the Mozambique National Department of Statistics and Ministry of Planning and Finances, performed a national population-based Multiple Indicator Cluster Survey.[19] Results indicated that there were an estimated 22,000 persons with amputations in Mozambique. Another survey commissioned by USAID reviewed records of 25 civilian and one military hospital between 1975-1991, identifying 4507 persons with amputation.[20]

Statistics on mine casualties in Mozambique provided by hospitals, demining agencies and non-government studies provide only partial information on mine injury in the country. Conservative estimates indicate that the number of landmine victims in Mozambique is 7000, although figures as high as 10,000 to 15,000 have been reported.[3,14] Obtaining accurate country-wide statistics regarding death and injuries due to landmines is difficult. Up until 1990 the government did not permit the ICRC to indicate type of device causing war-related amputation nor distinguish between soldier or civilian. A nation-wide mechanism for recording landmine victims was only instituted in 1993, and as yet they have not been implemented satisfactorily in all provinces. Currently there are approximately 16 officially registered landmine victims each month in the six provinces where data collection is functioning satisfactorly (Maputo, Inhambane, Sofala, Manica, Tete, and Zambezia).

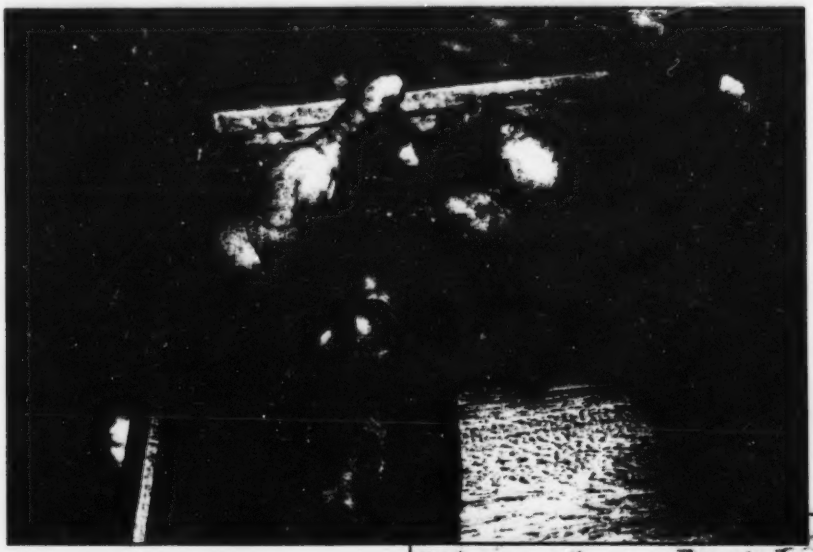
A Physicians for Human Rights household survey was performed in 1995 in the provinces of Manica and Sofala. They determined that half of landmine victims did not survive the injury; of the survivors only 40% had received a prosthesis. Sixty-eight percent of the those injured were civilians, 16% women and 7% under age 14.[16] In 1995 CIETinternational published the results of community surveys conducted in Cambodia, Afghanistan, Bosnia, and Mozambique. They found 25-87% of households had had daily activities affected by landmines, and 40% of households with a landmine victim experienced difficulty providing food for their families.[7]

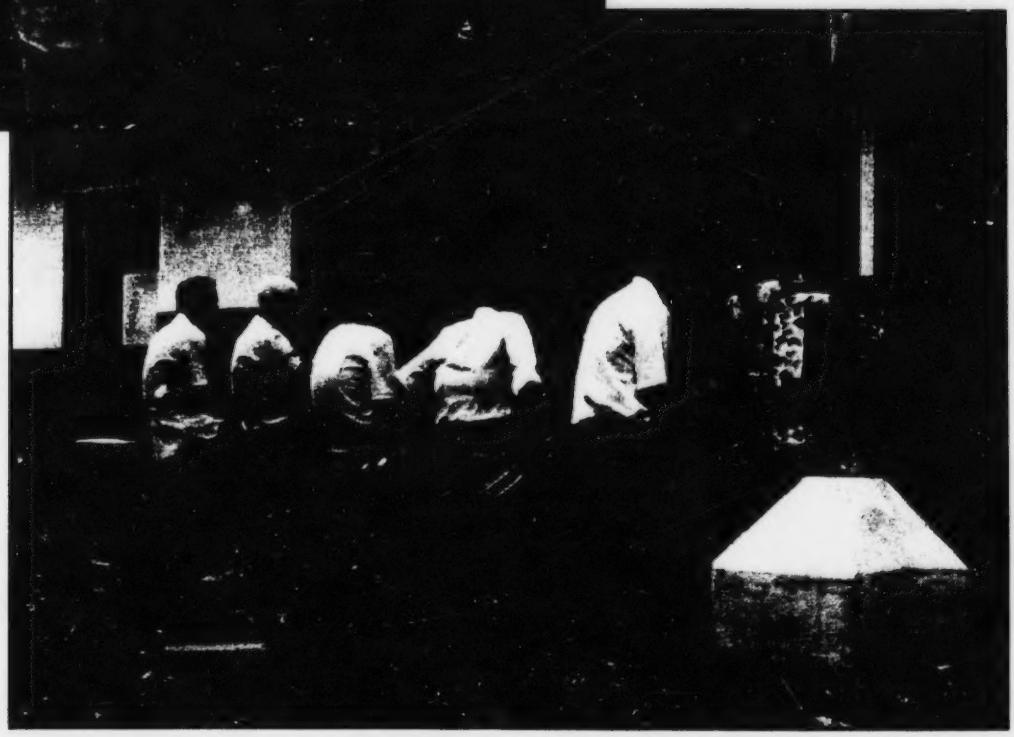
Orthoprosthetics in Mozambique

Orthoprosthetic care was first established in Mozambique in 1972 as a private centre in Maputo. In 1980 the ICRC took over the centre and developed it to serve as the national centre. Currently there are two humanitarian organizations which between them, and in cooperation with the Mozambique Ministry of Health, manage the countries 10 orthopedic centres. In 1995, POWER took over management of the four centres originally established by ICRC in Maputo, Beira, Quelimane, and Nampula. All POWER centres employ polypropylene technology in the fabrication of prosthetic components. POWER's objectives include the creation of self-sustaing prosthetic and orthotic programs for Mozambique, provided freely to all, with indigenous people trained to provide these services. Handicap International (HI) established centres in Inhambane, Vilanculos, Lichinga, Pemba, Nampula and Tete. HI utilized indigenous materials in the manufacture of its prostheses and orthoses (wood, leather, steel and aluminum) but recently began incorporating polypropylene in some of its devices. All of the

centres are currently integrated with the Mozambique Ministry of Health. Recently arrangements have been made which will see POWER assisting the Ministry of Health in material acquisition for all of the country's orthopedic centres. POWER will also develop two new centres in Chimoio and Xai Xai, and in cooperation with ADEMO, will start a wheelchair manufacturing centre in Maputo. There are 30 physiotherapy services in the country, 16 created by HI and under the complete management of the Ministry of Health. Rehabilitation, prosthetics, and mobility aids are provided to Mozambicans at no charge.

According to databases of POWER and HI, and previous reports by the Vietnam Veterans of America Foundation,[3] the provinces most severely affected by landmines are Zambezia, Maputo, Inhambane, Sofala and Tete. At POWER's four clinics, 703 people were fitted with prosthesis in 1997, of whom 45% were landmine victims.





Project Methodology

In collaboration with the Mozambique Ministry for Social Action, the Association for Disabled Mozambique Citizens (ADEMO) and the Association for Disabled Mozambique Soldiers (ADEMIMO), we identified seven rural districts and one urban district in which to conduct our survey. All rural sites were areas that had endured heavy fighting and landmine use during the war. This study was structured as a cross-sectional survey study (Appendix A). Inclusion criteria was having an upper and/or lower limb amputation(s), and residing in the districts identified.

The in-field project team was comprised of three Canadians and one Mozambican. Between January and April 1998, surveys, interviews and examination of persons with amputation were conducted in 13 rural villages (7 districts) and one urban setting in the provinces of Maputo and Inhambane, two of the provinces felt to be most severely affected by landmines.

Individuals in each district were recruited through preliminary site visits, word of mouth, posters, and assistance of local administrative heads, village chiefs, and representatives of the disabled. We attempted to survey all known persons with amputation in each district. Interviews were conducted at designated sites in the 13 villages, or at the homes of individuals who could not travel to the sites. Written consent was obtained from the Ministry for Social Action, the administrative heads in each district, and each individual surveyed.

In developing the survey tool, meetings were first held with POWER-Mozambique, HI, and ADEMO to explore issues felt to be important to the disabled and to those involved with the delivery of the services currently offered. The survey was structured so to gather demographic data about the interviewee, etiology of amputation and details of injury, rehabilitation services received, aids and prosthetics used in the past and presently being used, reasons for not obtaining prostheses/services or not using aids/prostheses received, and difficulties with prostheses. Utilizing District Development Profiles published by the UNDP and United Nations High Commission for Refugees (UNHCR) in December 1997, socio-economic questions appropriate for the survey sites (livestock, crops, number of dependents, occupation) were determined and included in the survey. Interviewees were asked their feelings about their injury and perception of their health status. All ideas and concerns expressed by the interviewee with regards to injury, disability, rehabilitation and reintegration were recorded.

A Reintegration to Normal Living Index was included in the survey as a quality of life measure. Developed by Wood-Dauphinee and Williams,[5,20,21] it evaluates eight domains of daily function (mobility, self-care activities, daily activities, social roles, work activity, recreation, social activity and role in family) and three of perception of self (coping skills, relationships, social self). The eleven questions were scored on a three point scale (agree, no opinion, disagree) with a value of 2 for agree, 0 for disagree and 1 for no opinion (table 1). The maximum score is 22, meaning satisfaction in all 11 domains.

All survey items were translated into Portuguese, and back translated into English. The survey was first tested on a group of persons with amputation undergoing therapy at the orthopedic centre in Maputo, the capital of Mozambique. Questions were then re-worded or deleted as appropriate. All surveys were administered by one individual, a Mozambican prosthetist fluent in English, Portuguese and the local dialects of the districts surveyed (Shangaan and Ronga).

The team physician examined all patients with permission. Photo and video documentation of gait, prostheses, mobility aids, and injuries were obtained with each individuals expressed permission.

Data was analyzed by two-tailed Fisher's Exact Test to compare RNL scores between groups, and to compare socioeconomic and demographic variables. In the analysis of the RNL and socio-economic data, we did not include the children who were surveyed as the questions were not appropriate for children.

Survey Sites

Sixty-one people with amputations were interviewed in rural Maputo province, in the districts of Moamba, Magude and Matutuine with interviews held at administrative posts Pessene, Ressano Garcia, Sabie, Moamba, Magude, Matoze, and Zitundo. In addition we interviewed 18 other physically impaired residents (non-amputation) from these districts utilizing the same question format. Twenty non-impaired villagers from Moamba district were interviewed as controls for the RNL and socioeconomic data.

In Inhambane province collaboration was primarily through ADEMIMO. Four districts were identified for survey sites; Maxixe, Morrumbene, Homoine, and Jangamo. Message was spread in the same manner as in Maputo province, although more reliance on military affiliation was evident. Forty people with amputations were interviewed between these sites.

Finally, on two separate days surveys were conducted with twenty people with amputation selected at random within a defined geographical area in the city of Maputo.

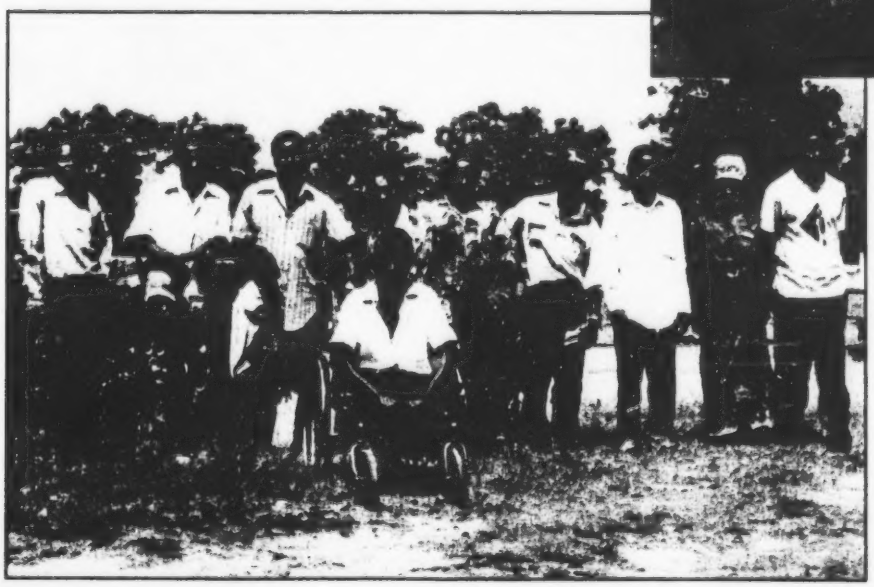
For the interviews, we chose to survey all known persons with amputation in each site, irrelevant of the cause of amputation. As mentioned, we strongly felt that the issues and challenges faced by persons

Reintegration to Normal Living Index

1. I move around my living quarters as I feel necessary.
2. I move around my community as I feel necessary.
3. I am able to take trips out of town as I feel necessary.
4. I am comfortable with how my self-care needs (dressing, feeding, toileting, bathing) are met.
5. I spend most of my days occupied in a work activity that is necessary or important to me. (work activity may be paid employment, housework, volunteer work, school, etc.)
6. I am able to participate in recreational activities (hobbies, crafts, sports, games, etc.) as I want to.
7. I participate in social activities with family, friends, and/or business acquaintances as is necessary or desireable to me.
8. I assume a role in my family which meets my needs and those of other family members.
9. In general, I am comfortable with my personal relationships.
10. In general, I am comfortable with myself when I am in the company of others.
11. I feel that I can deal with life events as they happen.

with amputation were more important than just isolating those with amputation due to landmine injury. We were thus able to obtain a more accurate assessment of access and utilization of rehabilitation services in the areas surveyed. Rehabilitation and prosthetic services in Mozambique are not exclusively offered to landmine victims but are available for all persons with physical impairment.

Each participant was given a capulana (traditional wrapping cloth worn by Mozambican women). Prior to beginning the surveys, the nature of the gift was discussed with POWER, ADEMO, ADEMIMO, and the Ministry for Social Action. A gift of a capulana was felt to be appropriate, as it is seen as a token of thanks and respect for the time the interviewees had given us.



RESULTS

Demographics and Amputation Etiology

One hundred and twenty-one persons with amputations (96 men and 25 women) were surveyed. Ages ranged from 10 to 75 (mean age 41). The primary etiology of amputation for both men and women was landmine injury, followed by bullet wounds and train accidents (Table 1). Ninety-eight (81%) of those surveyed had lower limb amputations (Table 2).

Cause of amputation	Males number (%)	Females number (%)	Total number (%)	Total received rehabilitation
Landmine	52 (43%)	13 (11%)	65 (54%)	46 (72%)
Bullet	16 (13%)	4 (3%)	20 (17%)	10 (50%)
Train accident	6 (5%)	4 (3%)	10 (8%)	7 (70%)
Mortar's mine	6 (5%)	0	6 (5%)	3 (50%)
Work accident	6 (5%)	0	6 (5%)	4 (67%)
Car accident	4 (3%)	0	4 (3%)	3 (75%)
Snake bite	2 (2%)	1 (1%)	3 (2%)	0
Infection / gangrene	2 (2%)	0	2 (2%)	2 (100%)
Electric shock	0	1 (1%)	1 (1%)	1 (100%)
Fracture	0	1 (1%)	1 (1%)	0
Crocodile bite	1 (1%)	0	1 (1%)	0
Leprosy	1 (1%)	0	1 (1%)	0
Cut off by soldier	0	1 (1%)	1 (1%)	0
TOTAL	96 (79%)	25 (21%)	121 (100%)	76 (63%)

Table 1: Cause of amputation of survey group by gender (n=121), and numbers who received rehabilitation (n=76).

Level	Male	Female	Total
A/K	31	6	37 (31%)
B/K	37	5	42 (35%)
B/K B/K	3	2	5 (4%)
A/K B/K	1	2	3 (2%)
A/K A/K	2	0	2 (2%)
chopart	4	0	4 (3%)
knee disarticulation	2	1	3 (2%)
feet	1	10	1 (1%)
A/K A/E	1	0	1 (1%)
Total lower limb	82	16	98 (81%)
hands/fingers	3	0	3 (2%)
B/E	4	3	7 (6%)
A/E	7	5	12 (10%)
B/E B/E	0	1	1 (1%)
Total upper limb	14	9	23 (19%)
TOTAL	96	25	121

Table 2: Levels of Amputation by Gender (n=121)

A/K = above knee amputation, B/K = below knee amputation, A/E = above elbow amputation, B/E = below elbow amputation.

Access to Prosthetics

Overall, 76 people (63%) had received treatment at a rehabilitation centre in Mozambique. (Table 3) Men were more likely than women to receive rehabilitation (66% of men versus 52% of women). Sixty-two percent of persons (75 people) surveyed had received prostheses, which includes two men who had constructed their own prostheses, but had never received treatment at a rehabilitation centre.

Very few individuals with upper extremity amputations received rehabilitation (17%) although 52% of the people with upper extremity amputations stated that they were interested in rehabilitation.

Amputation Level	Rehabilitation n=76			No Rehabilitation n=45			TOTALS
	Male	Female	Total	Male	Female	Total	
Lower Limbs	61	11	72	21	5	26	98 (81%)
Upper Limbs	2	2	4	12	7	19	23 (19%)
Total	63 (66%)	13 (52%)	76 (63%)	33 (34%)	12 (48%)	45 (37%)	121 (100%)

Table 3: Rehabilitation and No Rehabilitation in persons with lower limb and upper limb amputations "Rehabilitation" is defined as having received treatment at one of the country's orthopedic centres.

Type of Rehabilitation aid received	Rehabilitated group (n=76) Number (%)		Non-rehabilitated group (n=45) Number (%)		Total who received aids (%)
	Received Aid	Still Using Aid	Received Aid	Still Using Aid	
Prosthesis	73 (95%)	52 (71%)	2 (5%)	2 (100%)	75 (62%)
Crutches	72 (94%)	65 (90%)	17 (36%)	17 (100%)	89 (74%)
Wheelchair	7 (9%)	3 (43%)	1 (2%)	0 (0%)	8 (7%)

Table 4: Rehabilitation aids received and continue to be used in both rehabilitated and non-rehabilitated groups

We found that lack of information and lack of transportation were major obstacles in accessing prosthetic/rehabilitation services (Table 5). Many reported that they thought the prostheses would cost money or that they could not afford the transportation. Many were unsure how to gain access to the services, and lacked information on what services were available. Overall, amongst the 121 people surveyed, there were 48 reports that lack of information and/or transportation prohibited access to the centres, whether for a first prosthesis or for repairs/replacement prosthesis.

Reason for no rehabilitation n = 45	Number (%)
No information	14 (32%)
Not interested	12 (27%)
No transportation	11 (25%)
Too expensive	6 (14%)
Orthopedic center full	3 (7%)
No help	1 (2%)
Painful stump	1 (2%)
No time	1 (2%)
On waiting list	2 (2%)
Told could not make prosthesis for type of amputation	2 (2%)

Table 5: Reasons for not receiving Rehabilitation (n=45)

Difficulties with Prostheses

Of the 75 people who received prosthesis, 54 continued to use them (72%). Reported difficulties with prostheses among those who continued to use them included painful stump and broken components (Table 6). Of the 21 people who received a prosthesis but no longer used it, 67% reported that a broken prosthesis was the main reason for not using the prosthesis (Table 7).

Difficulty using prosthesis	Number (%)
Stump painful	18 (35%)
Broken	6 (12%)
Bad fitting	1 (2%)
Heavy	1 (2%)
Other wounds	1 (2%)
No difficulties	25 (48%)

Table 6: Difficulties using prosthesis in those that still use (n=52)

Reason for not using prosthesis (n= 21)	Number (%)
Broken	14 (67%)
Bad fitting	3 (14%)
More mobile without	1 (5%)
Stolen	1 (5%)
Destroyed in fire	1 (5%)
No answer	1 (5%)

Table 7: Reason for not using prosthesis (n=21) in those who had received one (n= 73)

Quality of Life

In analyzing the Reintegration to Normal Living Scores, we separated the 23 people who had upper-limb amputations from the 98 people with lower-limb amputations. Among the lower-limb amputation group, those who had received rehabilitation had signifcantly higher mean total RNL scores than those who did not (mean 16.4 for those with rehabilitation and 13.5 for those without; $P<0.001$). Responses for each of the eleven domains were analyzed. Those with rehabilitation had higher scores in all of the eight domains of daily function (Figure 1). Comparisons were made between those with upper limb and those with lower limb amputations. Those with upper limb amputation had significantly better scores in home and community mobility, while those with lower limb amputation had significantly better scores in self-care activities and social activities. Male and female differences were few, with the only significantly better scores for men being in recreational activities.

In regards to feelings about their impairment, the common theme of frustration and sadness prevailed, but this coincided with the overwhelming sense that one still must go on, the war is over; they had survived. Ninety-one percent of those interviewed stated that they looked forward to the future.

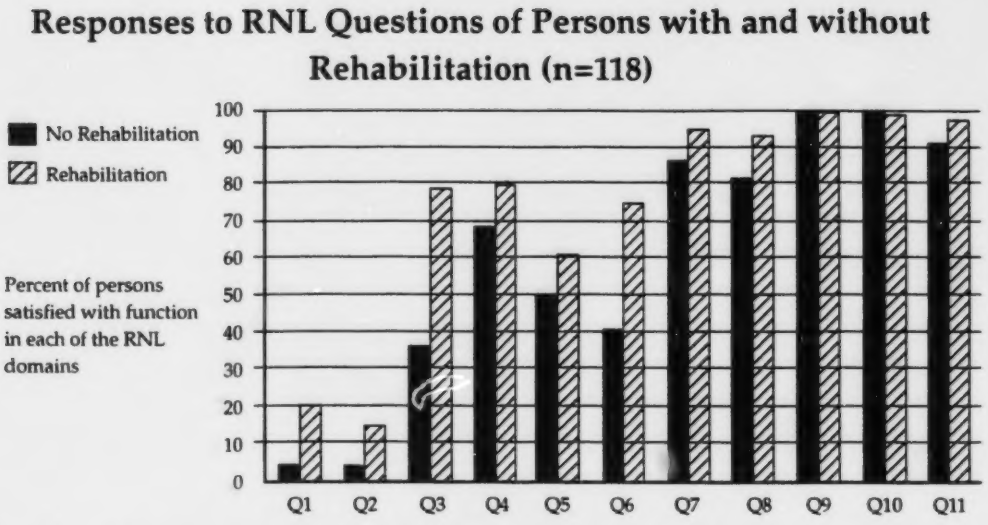


Figure 1. Reintegration to Normal Living Questions: 1. Mobility in living quarters; 2. Mobility in community; 3. Mobility out of community; 4. Self-care; 5. Work activity; 6. Recreational activity; 7. Social activity; 8. Family role; 9. Relationships; 10. Social-self; 11. Coping skills

Socioeconomic Status

Overall, 49% of the persons with amputations had livestock, and 65% had crops. Household surveys conducted by the UNHCR/UNDP in 1996 in Mozamabique provide some comparative data on households with crops and livestock. In the UNHCR/UNDP Magude District Profile, 29/30 (97%) of households had animals for domestic consumption, and 19/30 (63%) had crops for cultivation. Among the population of persons with amputation that we surveyed in Magude District, 57% of those with prostheses had livestock versus 33% of those with no prosthesis. In terms of crops for cultivation, 86% of those with prostheses had crops and all of those without prostheses had crops.

Qualitatively we determined that rejection by community and family was not a problem, and in fact rarely occurred. However, the majority of individuals who had been employed prior to their injury were not rehired or allowed to continue at their job as the employers felt they would not be able to work. Many men reported "not permitted" as why they no longer could obtain salaried employment. This was despite Mozambique constitutional rights protecting the disabled. Only 11 of the 121 people surveyed had paid employment (7 of them had received rehabilitation). Other major obstacles faced in trying to support themselves and families were inability to purchase seeds, equipment, and livestock needed to begin farming activity or ability to get a loan to cover farming start up costs.

Comparison of Persons With and Without Amputation

In one district comparisons were made through evaluation of RNL scores and socio-economic status of persons with amputation and without amputation. In Moamba district, twenty controls (11 men and 9 women without amputation) were randomly recruited by the same people and methods as the persons with amputations in Moamba district. No significant differences were found in demographics between the two groups (age, gender ratio, number of dependents). Mean RNL total scores were significantly higher for the non-amputation group than the amputation group (21.0 versus 15.4, $P<0.001$). The people without amputations had higher scores in all eight of the domains of daily function, with significant differences in five of the eight domains; home, within-community, and outside community mobility, self-care, work activities (Figure 2). Non-impaired persons were more likely to earn a salary and have crops to support their families (Table 8).

	Sex	RNL average	Paid Work	Own Crops	Own Livestock	Hope for Future
Amputation	Male n=29 Female n=10	15.6 14.6	22% 0%	63%	46%	75%
No Amputation	Male n=11 Female n=9	22.0 21.0	91% 36%	95%	45%	80%

Table 8: Comparison of persons with and without amputation in Moamba District

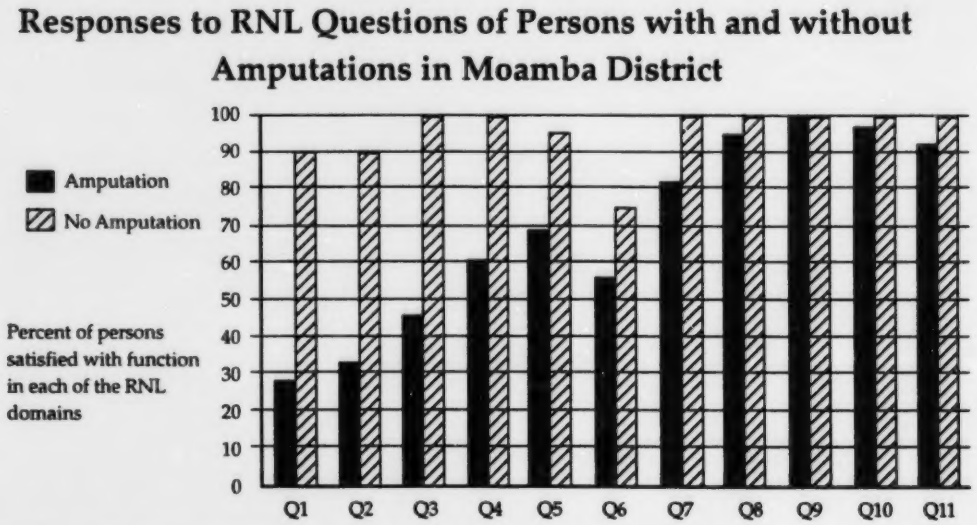
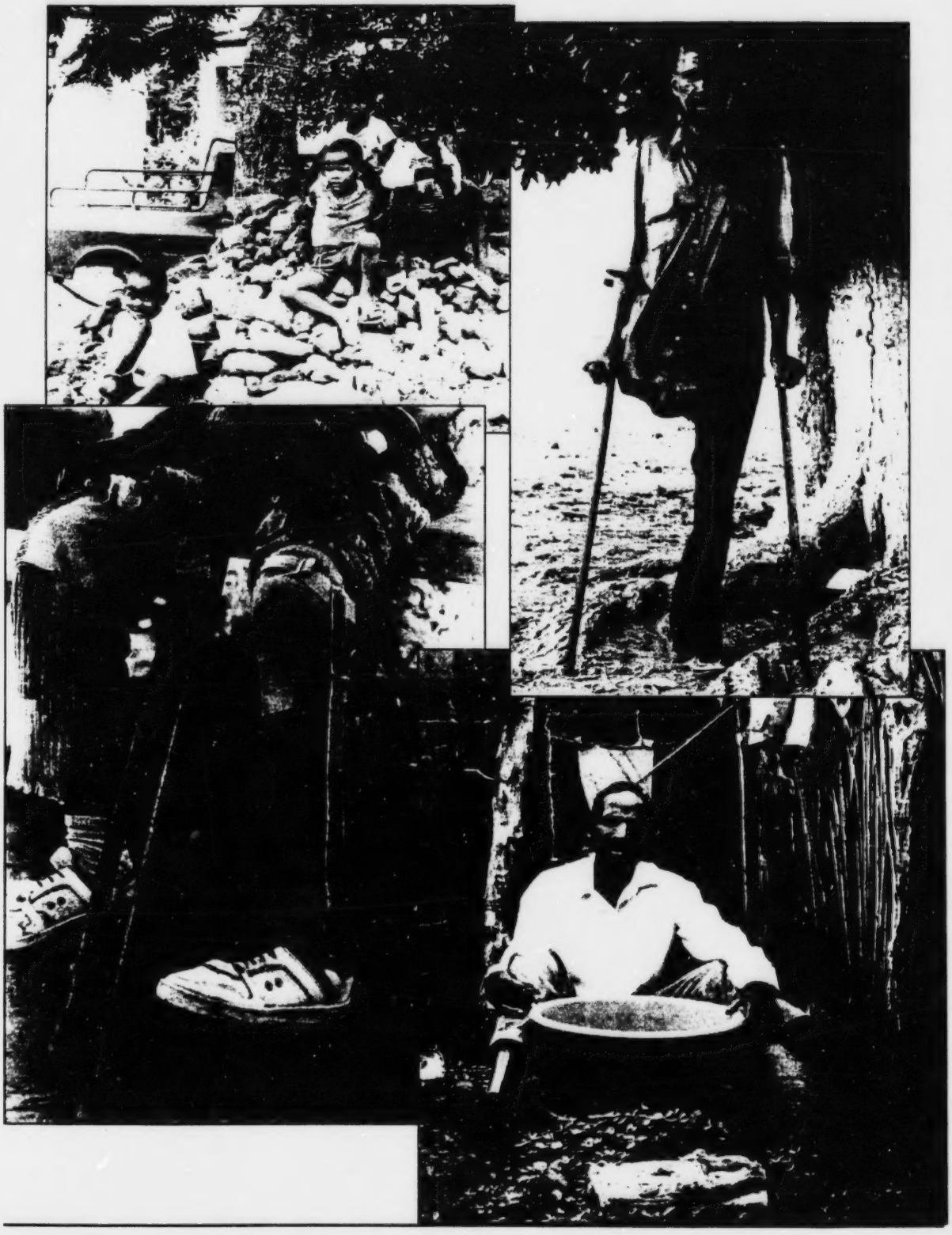


Figure 2. Reintegration to Normal Living Questions: 1. Mobility in living quarters; 2. Mobility in community; 3. Mobility out of community; 4. Self-care; 5. Work activity; 6. Recreational activity; 7. Social activity; 8. Family role; 9. Relationships; 10. Social-self; 11. Coping skills



Personal Histories

Quantitative data and statistics tell only part of the story. The information gathered from personal histories and experiences provides valuable insight into the day-to-day challenges of living with disability in Mozambique.

Armando's Story

Armando is a 63 year old man from Moamba district who had worked as a miner. Three years earlier he had stepped on a landmine while gathering wood to make charcoal for his family. He received a prosthesis for his below-knee amputation and successfully underwent rehabilitation therapy at the Maputo orthopedic centre. He now ambulates with no mobility aids and is fully independent. His gait is smooth and steady even on rough terrain, and it is difficult to perceive any gait abnormality. However, his employer has refused to give him his job back, despite Armando's confidence that he can continue in his full capacity. He receives no pension as the accident did not occur at work. Armando has four dependents, and now has difficulty supporting his family on the few crops he grows on his land. He also described shortage of seeds and young animals as major obstacles in trying to begin farming activity.

His story illustrates what appeared to be a common occurrence among the people that we interviewed; denied access to jobs due to the physical impairment. "Não è admitido" (I am not admited) was the common response in answering why one was not working.

We also heard from many people that after the war and the drought they were left with no animals or crops. Animals had been stolen, killed or had died from disease. With no cash to buy seed or animal stock, many people have found it very difficult to rebuild after the war. Although land is free and available for Mozambique citizens, the means by which to start farming activity is not. Some people suggested to us that a system of loans be established so that they could puchase the necessary supplies to rebuild their farms.

Micas and Elface

Micas is a 13 year old student living in Timanguene in Magude District. He met us with his mother under a tree outside his school, where an excited crowd of classmates watched him being interviewed. A torn strip of cloth from track pants held a piece of foam onto the bottom of his leg where his foot should have been. A year earlier, along with other children in his village, he had been approached by a man from Maputo to gather scrap metal in return for money. The children eagerly took to the task; burned-out carcasses of vehicles left from the war lay scattered in the fields and so the pile of metal grew quickly. Unknowingly, someone had added a landmine to the pile, and as the weight upon it grew it eventually exploded, spraying sharp metal shards in all directions. Micas' mother tells of 12 children dying, their remains so indistinguishable that they were buried in a mass grave. Micas lost his foot. Micas continues to study at school, but was unhappy with the thought of not being able to play football with his friends. He has never been to a rehabilitation centre, as his mother does not know of the services available, and is unsure who could look after her crops should she leave with her son to Maputo.

Elface is a 14 year old student from Moamba District who lost his leg above the knee when he stepped on a landmine four years earlier. He has recently returned from Maputo, where he was fit with an above-knee prosthesis and underwent training to learn how to walk with it. He uses it all the time, and although still feels limited in what he can do, is constantly prodded and encouraged by his friends to join them in their activities, including climbing trees.

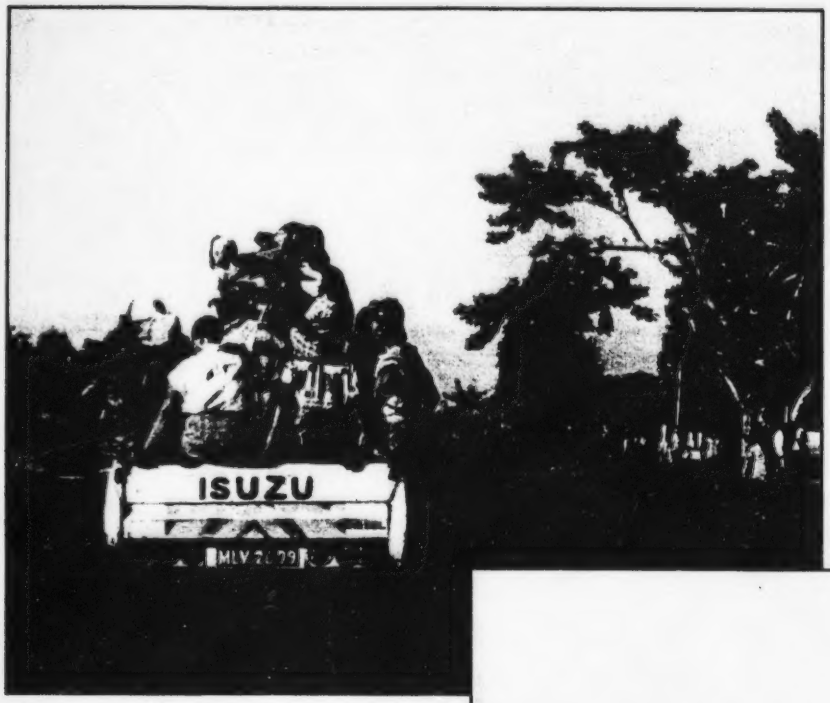
Children are frequently the victims in landmine injuries, and tend to have more lethal injuries due to their size and closer proximity of vital organs to the level of the blast. Children will also require new prostheses every 6 months to one year as they continue to grow. Micas' mother echoed the sentiments of many we interviewed. Information was required for people about the services available, how to access them, costs involved, provision of accomodation and food while undergoing therapy, and options for children (where can parents stay).

Unlike some countries where persons with disablity are rejected by family and society, the vast majority of the population we interviewed found support and assistance amongst family and community.

Rosa

At age 30, Rosa is a widow supporting 7 children. Her husband was killed during the war and she lost both of her legs to a landmine injury when she ran from fighters attacking her village. She received rehabilitation from the Maputo rehabilitation centre, and currently uses two prostheses and two forearm crutches to ambulate. She uses them all the time, even though she occasionally experiences some stump pain. She also has a wheelchair, but it is broken so she is no longer able to use it. Both of her prostheses are in disrepair, and have undergone a number of homemade repairs, with strips of cloth and pieces of wire used to hold the components together. She knows that they need to be fixed, but she cannot afford the money for the bus and she has no one to look after her children and tend to her animals should she leave for Maputo.

In all, twenty-six of the people we interviewed described and demonstrated the need for repairs to their equipment. Fourteen of them could no longer use their prosthesis because of this. The availability of parts and servicing at the community level currently does not exist, and many did not have the means to afford transportation back to the rehabilitation centre.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Discussion

The findings of this survey have provided those involved in prosthetic and rehabilitation services in Mozambique with evidence that the services provided were effective for those who received them.

The large majority of those who received prostheses used them, and quality of life as measured by RNL scores was better for those who had received prostheses than those who had not. The survey has identified major areas of need, specifically in information dissemination and in transportation, both for those who have never received rehabilitation and for those who are in need of repairs or new prostheses.

Through the interviews we learned that many reported not knowing how to arrange to be seen at the orthopedic centre, where to go, or how to get there although they knew the service was available. Others did not know the service existed. Some women reported that they did not know what a prosthesis could do for them, so did not pursue it. Many who knew about the services stated that they simply could not afford the transportation to the centre or risk leaving their farms and dependents while undergoing the course of rehabilitation. Women did not know who would look after their children should they leave for the centre. We identified that fewer women than men accessed prosthetic services, and very few persons with upper extremity amputation had received rehabilitation.

We showed that overall in our survey group fewer people had livestock or paid employment to sustain their families compared to the general population of their districts.

While landmine injury has received global attention in recent years, and the majority of our survey population had lost limbs to landmine blasts, a large number of persons lost limbs to bullet wounds, train and motor vehicle accidents. These individuals face the same challenges as those injured by landmines, and deserve the same services. We strongly urge that when programs to serve landmine victims are initiated, that the resources are not restricted to those injured by landmines, but available equally to all with physical impairment.

The statistical results of this work should not be extrapolated to represent the situation in all of Mozambique. However, the information gathered was consistent in each of the sites surveyed. In combination with reports and discussions with POWER, HI, the Ministry for Social Action, ADEMO, ADEMIMO, local representatives of the disabled in each site, and the interviewees themselves, we feel that our observations and recommendations reflect the realities of rehabilitation in this country.

Conclusions

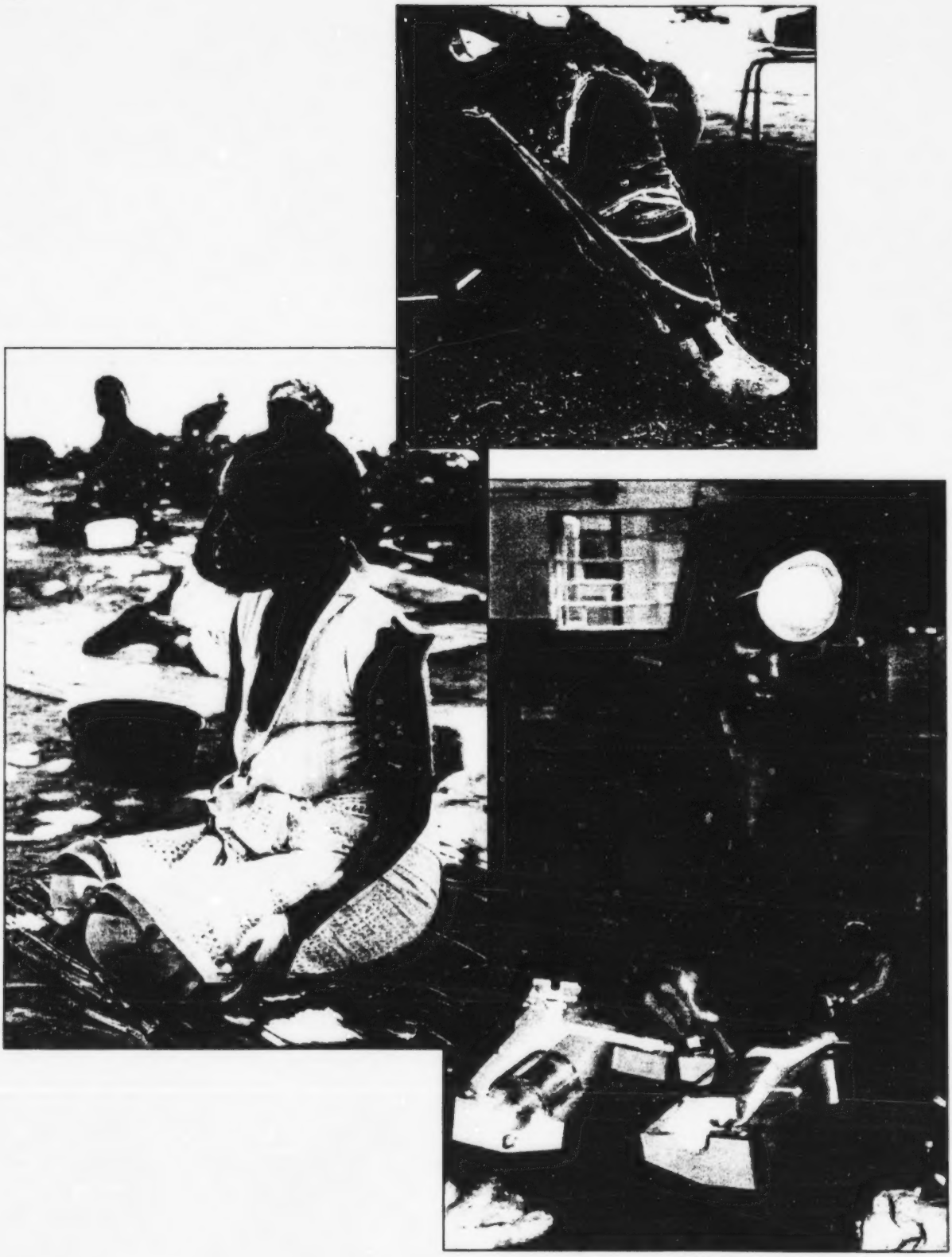
Providing prostheses and associated rehabilitation to persons with amputations in Mozambique is an important service that enables individuals to improve their quality of life and socio-economic well being.

Persons who received prostheses used them, typically for many years despite obvious need for repairs or new prostheses.

Improved dissemination of information and economical transportation could potentially allow more access to the centres to receive prostheses and obtain necessary repairs.

Persons with amputations in Mozambique, despite rehabilitation, continue to have difficulty in finding salaried employment, owning livestock and travelling in and outside their community compared to the general population.

The approach taken in acquiring this quantitative and qualitative data on both subjective and objective evaluation of function and well-being could be implemented in other landmine-affected or developing countries.



Recommendations for Amputation Rehabilitation – Policy Options and Guidelines

Accessibility

Prosthetic services should be available to all who need it and efforts to ensure access institited. Transportation to orthopedic centres and accomodation while in therapy must be included in the rehabilitation process. A mechanism whereby local administrators or health workers can refer individuals to the centres as required is needed.

Universality

Services offered must be available for all physically impaired irrelevant of the impairment etiology, disability, sex, age, political or military affiliation. Although landmines have attained global attention, those who have lost limbs to bullets, work accidents, train accidents, and other means, as well as those impaired, disabled or handicapped by any means, are equally deserving and in need of rehabilitation services.

Continuity

An amputation is lifelong; repairs, refitting, replacement of prostheses and aids must be ensured. This requires education of patients who go through the centres on how to access the available resources and services for repairs, new fittings, and difficulties as needed. This may include where appropriate and feasible, the availability of parts and servicing at the community level.

Extension of Services

Counseling and job retraining are important and effective aspects of rehabilitation and should be implemented as resources allow and where such services are appropriate. The contined development of physiotherapy services at community level is important.

Empowerment

Disability support and lobby groups at the local and national level need assistance in developing infrastructure and managerial skills in order to effectively advocate and develop sustainable projects on their own behalf. Efforts should be made to train and employ people with physical disabilities in the ongoing projects that serve the disabled community, so as to serve as role-models and to facilitate the dissemination and accessibility processes.

Dissemination

Information and education regarding the services available and methods of access must be implemented at all levels. This especially concerns the workers at rural health posts who are in a position to identify and advise persons with an impairment of the services available and how those services may be accessed.

Equality

Constitutional rights of the disabled ensuring no discrimination, particularly in the workforce, must be introduced and enforced.

Evaluation

The development of a national data base on target groups is essential to assist those working on the delivery of rehabilitative services in planning their programs. Follow-up of those who receive services should be ongoing when possible, so to ensure the needs of the population are being met and that the services being offered have positive impact individuals lives.

Appendix A

Survey

QUESTIONÁRIO SOBRE AMPUTAÇÃO E REABILITAÇÃO

Data de Inquérito: _____/_____/_____ Nome: _____

Local: _____ _____

Equepe de Inquérito: _____ Sexo: M F Idade: _____

1. Data de acidante _____/_____/_____ e amputação _____/_____/_____
2. Nível de amputação(es)
3. História de acidente
4. Estado civil solteiro(a) ____ casado(a) ____ divorciado(a) ____ viuvo(a) ____
   separado(a) ____ consuetudinário ____ outros ____
5. Número de dependentes ____ Nº de rapazes ____ Nº de raparigas ____
   Estudah? Sim ____ Não ____ Se Não, porguê? _____
6. Ocupação _____
7. Trabalha? Sim ____ Não ____ Se Não, porque? _____
8. Nível mais elevado de educação adquirido primário ____ secundário ____
   pre-universitário ____ universidade ____ escola comercial ____ outros ____
9. Alguma vez recebeu uma terapia de reabilitação? Sim ____ Não ____
10. Se Não recebeu, quais sãos as razões?
    A distância é maior _____ Muito caro _____
    Não sabia nada de assunto _____ Falta de transporte _____
    Não há serviços disponíveis _____ Não está interessado(a) _____
    Não pensava que ia ajudar _____ Outros _____

    Se Sim, aproximadamente quantas semanas/meses de terapia você recebeu?
    Menos do que uma semana ____ 1-4 semenas ____ 1-2 meses ____
    2-6 meses ____ mais de 6 meses ____

    Serviços que recebeu: Prótese ____ outros auxiliares/cadeira/de rodas bengala ____
    conselhos ____ terapia física/exercícios ____
    retreinamento para trabalho ____
    outros _____

    Auxílios de reabilitação que alguma vez recebeuAuxilios de reabilitação que usa de momento
    prótese _____ _____
    bengala _____ _____
    muletas _____ _____
    cadeirade de rodas _____ _____
    outros _____ _____

    Quando é que usa a sua prótese?_____

    Dificuldades em usar a prótese: muito forte___ dor no coto___ partido___ ponta do coto faz contacto___
    coto muito curto ___ mau acabamento ___ coto infectado ___ outros _____
11. Tem esperança para o futuro? Sim___ Não____ Não tem opinião____
12. No geral pode dizer que a sua saúde é ...
    excelente___ muito boa___ boa___ razoável___ má___
13. Tem criação de animais? Sim___ Não___; Se Sim, que tipo de animais?_____
14. Tem machamba? Sim___ Não___; Se Sim, o que produz?_____
15. Como se sente a respeito do que aconteceu? _____
    _____

1. Ando no meu bairro sempre que sinto necessidade em faze-lo (cadeira de rodas, outros aparelhos ou recursos podem ser usados).
   Sim: _____ Não: _____ Não tem opinião: _____

2. Ando na minha comunidade sempre que tenho necessidade (cadeira de rodas, outros aparelhos ou recursos podem ser usados).
   Sim: _____ Não: _____ Não tem opinião: _____

3. Sou capaz de fazer viagens para fora da cidade (localidade) quando necessário (cadeira de rodas, outros aparelhos ou recursos podem ser usados).
   Sim: _____ Não: _____ Não tem opinião: _____

4. Sinto-me foncortável ao cuidar das minhas necessidades (vestir, comer, ir a casa-de-banho, tomar banho. Equipamento adaptador, supervisão e/ou assistência podem ser usados)
   Sim: _____ Não: _____ Não tem opinião: _____

5. Passo a maior parte dos meus dias ocupado no trabalho, o que é necessário ou importante para mim. (Uma actividade pode ser um trabalho remunerado, trablhos domésticos, trabalhos voluntários, escola, etc.. Equipamento adaptador, supervisão e/ou assistência podem ser usados).
   Sim: _____ Não: _____ Não tem opinião: _____

6. Sou capaz de participar em actividades recreativas (passatempos, artesanato, desporto, leitura, televisão, jogos, computadores, etc.) sempre que quero. (Equipamento adaptador, supervisão e/ou assistência podem ser usados).
   Sim: _____ Não: _____ Não tem opinião: _____

7. Participo nas actividades sociais com a minha família, amigos, e/ou faço negócios quando quero ou é desejavel para mim. (Equipamento adaptador, supervisão e/ou assistência podem ser usados).
   Sim: _____ Não: _____ Não tem opinião: _____

8. Desempenho o meu papel na minha família o que vai de encontro com as minhas necessidades e com as necessidades dos outros membros da minha família (família aquí são consideradas todas as pessoas com quem vive ou parentes com quem não vive mas convive regularmente. (Equipamento adaptador, supervisão e/ou assistência podem ser usados).
   Sim: _____ Não: _____ Não tem opinião: _____

9. No geral sinto-me bem (avontade) no meu relacionamento com outras pessoas.
   Sim: _____ Não: _____ Não tem opinião: _____

10. No geral sinto-me confortável comigo mesmo quando estou na companhia dos outros.
    Sim: _____ Não: _____ Não tem opinião: _____

11. Sinto que sou capaz tratar dos acontecimentos da minha vida quando surgirem.
    Sim: _____ Não: _____ Não tem opinião:

NIVEL	7. Independência completa (sempre que oportuno e com segurança) 6. indepêndencia modificada (aparelho)	SEM AUXILIAR
	Dependência modificada 5. Supervisão 4. assistência mínima (sujeito = 75%+) 3. Assistência moderada (sujeito = 50%+) Dependência completa 2. assistência máxima (sujeito = 25%+) 1. assistência total (sujeito = 0%+)	COM AUXILIAR

Auto-assistência (cuidados pessoais)

A. comer
B. tratar-se
C. tomar banho
D. vestir-se - parte de cima do corpo
E. vestir-se parte de baixo do corpo
F. casa-de banho

Control de Esfíncter

G. control da beixiga
H. control dos intestinos

Transferências

I. cama, cadeira, cadeira de rodas
J. casa-de-banho
K. banheira, chuveiro, outros

Locomoção

L. caminhar/cadeira de rodas
M. escadas, elevação

Total _____

Nota: não deixe nada em branco, marque com1 se o paciente não é testavel devido a riscos.

Observações _____

_____

_____

Locomoção _____

Ficar de pé _____

_____

Appendix B

Intinerary

January 19	Colleen O'Connell and Jeff Campbell arrive in Maputo, Mozambique Meet with Mr. Max Denue, Country Director of POWER-Mozambique
January 20	Begin development of survey questionnaire Review applications for field officer/translator
January 21	Meet at Canadian consulate and review project objectives Secure an apartment
January 22	Meet with Ministry of Social Welfare and Social Action Translation of Draft Questionnaire
January 23	Set up accounts with POWER Investigate possible drivers
January 26	Meeting with Ministry of Social Action - organize preliminary visits to district Moamba, Magude and Matutuine
January 27	Meeting with ADEMO to review project, questionnaire items and arrange field visit to Manica to meet landmine amputees receiving support from ADEMO Ministry of Social Action preliminary visit to Magude district
January 29	Trial of questionnaire on test group
January 30	Interview and hiring of field officer/translator Training of translator Ministry of Social Action preliminary visit to Moamba
January 31	Field trip with ADEMO to Manica and homes of landmine victims
February 2	Meeting with Handicap International Ministry of Social Action preliminary visit to Matutuine
February 3	National Holiday
February 4	Development and translation of consent form Review UNDP/UNHCR District Profiles of Moama, Magude, and Matutuine Meeting with Ministry of Social Action for debriefing of field visits to districts
February 5-6	Final revisions and translations of questionnaire form Purchase of capulana cloths as token gifts to study participants

February 9	Third researcher, Stephen Adams, arrives
February 10	Arrangements for vehicle to Moamba district for first survey (Plan B)
February 11	Travel to Moamba; Day 1 of survey
February 12	Travel to Moamba, Day 2 of survey Preliminary visit to Ressano Garcia
February 17	Travel to Ressano Garcia, Day 3 of survey
February 21	Meet with COCAMO and CAW through Canadian consulate
February 23	Travel to Sabie, Day 4 of survey
February 24	Travel to Moamba, Day 5 of survey
February 25	Preparation of newspaper article (The Daily News- Halifax)
February 26	Meeting with ADEMIMO, preliminary arrangements for Inhambane surveys
March 3-5	Travel to Magude for district surveys (Day 6-8)
March 6	Abstract preparation for scientific meeting Arrangements made to attempt to repair camera equipment Attended CMCM celebrations for treaty conference
March 10-12	Travel to Matutuine for district surveys (Day 9-11)
March 13	Travel to Pessene for survey (Day 12) Survey in Maputo city (Day 13)
March 15-18	Travel to Johannesburg to repair videoequipment
March 16	Survey in Maputo city (Day 14)
March 19	Travel to Maxixe with ADEMIMO; preliminary visit to Morrumbene and Maxixe to prepare survey population
March 20	Travel to Homoine to prepare survey population
March 21-22	Travel to Inhambane
March 23	Travel to and surveys in each of Morrumbene, Maxixe, and Homoine
March 24	Survey in Jangamo, return to Maputo (Days 15-20)

March 25	Travel to Pessene (Day 21)
March 26-	Meeting with POWER, review progress and findings Begin statistical analysis of data Preparation of report
April 6	Depart Mozambique

Results from this research have been presentated at the Canadian Association of Physical Medicine and Rehabilitation Annual Meeting (Niagra, Ontario, Canada September 1998), the American Academy of Physical Medicine and Rehabilitation Annual Meeting (Seattle, Washington, USA November 1998), the CBC National Radio Morning Show (Canada, May 1998), and are planned for the 13th World Congress of the International Federation of Physical Medicine and Rehabilitation (Washington DC, November 1999)

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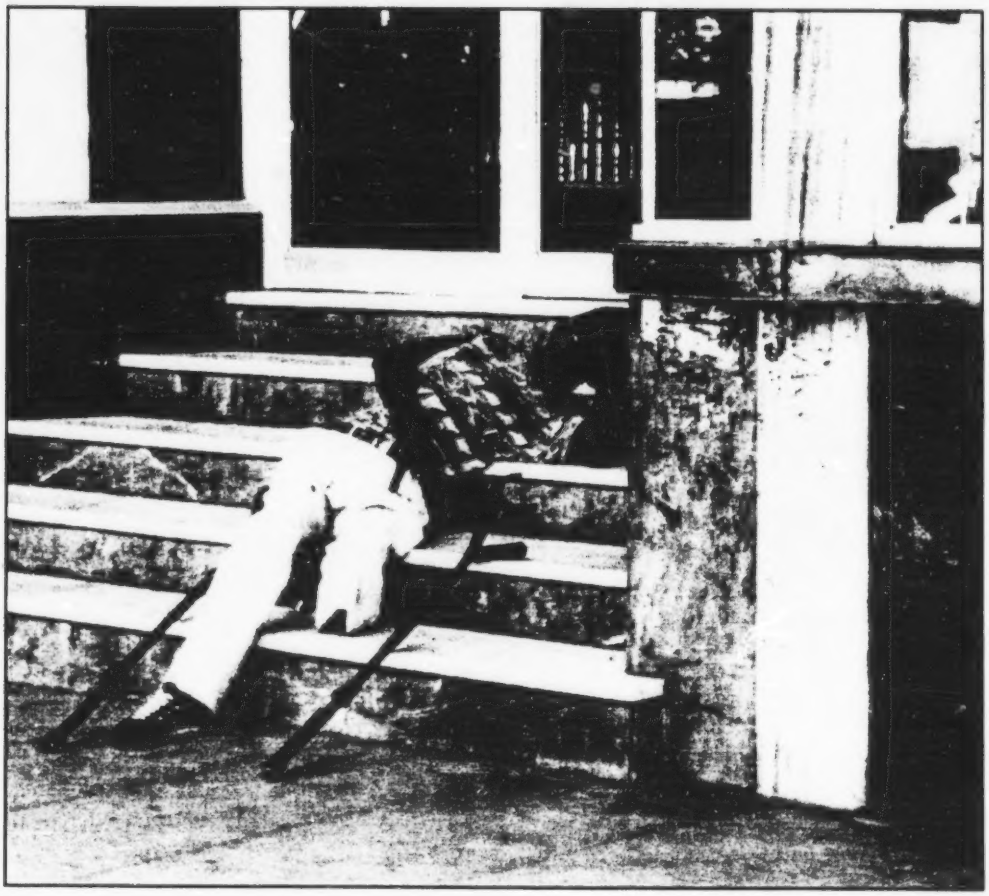

Appendix C

Name	age	sex	level	cause	dep	paid work	skill	rehab	why no rehab	prosth	crutch	couns	exerc	using prosth	why not using prosthesis	difficulty with prosthesis	hope	live stock	crops	RNL	FIM	speed m/sec	comments
Zunguene	36	M	B/E	bullet	1	N	farmer	Y	n/a	Y	n/a	Y	Y	always	n/a	none	Y	N	Y	18	86	n/a	no one will hire
Macova	46	M	A/K	mva	0	N	driver	Y	n/a	Y	Y	N	Y	always	n/a	none	Y	N	Y	20	86	0 6	no one will hire
Zucula	43	M	A/K	mine	6	N	shoe-maker	Y	n/a	Y	Y	N	Y	always	n/a	none	Y	N	Y	20	86	1	has conformed to situation, no one will hire
Neheme	36	M	B/K	mva	5	N	soldier	Y	n/a	N	Y	N	N	n/a	painful stump	n/a	Y	N	Y	14	86	0 6	annoyed, no one will hire, KFC
Sâavele	56	M	A/K	train	15	N	laborer	Y	n/a	Y	Y	N	Y	no	broken	n/a	N	N	Y	14	86	1	frustrated, no one will hire
Chongo	63	M	B/K	mine	4	N	miner	Y	n/a	Y	Y	N	Y	outdoors	n/a	stump gets hot	Y	N	Y	14	86	1 2	no one will hire
Macamo	32	M	B/K	mine	6	Y	clerk	Y	n/a	Y	Y	Y	Y	always	n/a	none	Y	Y	Y	18	86	1 3	feels "damaged", "prejudicado"
Alberto	30	F	B/K, A/K	mine	7	N	domestic	Y	n/a	Y	Y	Y	Y	always	n/a	stump pain	N	Y	N	16	86	0 6	has wheelchair, broken
Matombe	26	F	B/K	mine	4	N	farmer	Y	n/a	Y	Y	Y	Y	no	broken	n/a	Y	Y	Y	12	86	0 7	crutch need repair, works in field
Ubisse	56	M	A/K	work	0	Y	shoe-maker	Y	n/a	Y	Y	N	Y	no	broken	n/a	N	N	N	14	84	0 9	home-made crutch, does not know how to get new prosth
Arone	14	M	A/K	mine	0	n/a	student	Y	n/a	Y	Y	N	Y	always	n/a	none	no opinion	Y	N	13	86	0 9	friends help, feels limited
Matusse	36	M	A/K	mine	8	N	artisan fisherman	Y	n/a	Y	Y	Y	Y	always	n/a	stump pain	Y	Y	N	18	86	nd	has no $ to repair boat and nets
Chifungue	23	M	B/E, fingers	work	7	n/a	student	N	no info, cannot afford transportation	N	N	N	N	n/a	n/a	n/a	Y	N	N	16	91	n/a	flexion contractures remaining fingers
Chivure	55	M	A/K	crocodile	3	N	telephonist	N	could not get transportation	N	Y	N	N	n/a	n/a	n/a	N	Y	Y	12	86	1 2	crutches from hospital, feels incapable
Chongo	56	M	B/K, fingers	mine	6	N	farmer	N	transit center full; no $ for transport to return, wants prosth	N	Y	N	N	n/a	n/a	n/a	Y	Y	Y	12	86	0 7	works on own farm (on knees); employer will not hire, wants prosth
Pessane	66	M	A/E	bazuka	10	N	farmer	N	does not know of services	N	N	N	N	n/a	n/a	n/a	Y	Y	Y	12	91	n/a	interested in prosthesis
Toveal	56	F	A/K	mine	0	N	farmer	N	has no one to help her there	N	Y	N	N	n/a	n/a	n/a	Y	Y	N	12	86	0 7	home-made crutch, does domestic work
Fumo	36	M	A/K	mine	7	N	fireman	N	center was full	N	Y	N	N	n/a	n/a	n/a	N	N	Y	16	86	0 7	works in own fields, no one will hire
Chongo	45	M	A/K	snake bite	3	Y	farmer	N	does not know where the center is	N	Y	N	N	n/a	n/a	n/a	Y	Y	Y	18	86	1 3	brought crutches from S. Africa; has accepted his injury
Ngovane	68	F	A/K	train	0	R	domestic	N	no transportation	N	Y	N	N	n/a	n/a	n/a	N	N	N	10	86	0 6	crutches from hospital, too old to work
Chongo	27	F	A/E	bullet	2	N	farmer	Y	n/a	Y	n/a	N	N	no	not functional	n/a	Y	N	Y	10	91	n/a	sells in market, works in field
Ubisse	68	M	B/K	mine	13	N	miner	Y	n/a	Y	Y	N	Y	always	n/a	foot is broken	Y	Y	Y	15	86	nd	can't afford to travel to have foot fixed, does not know if shelter, food available while at center, difficult to leave his fields for long periods, works in own field
Ngonhamo	35	F	B/K	mine	2	N	domestic	Y	n/a	Y	Y	N	Y	always	n/a	needs repairs, stump pain	Y	Y	Y	16	86	nd	works in fields, told would get a card for free transport but did not receive, needs repairs, walks long distances

Name	age	sex	level	cause	dep	paid work	skill	rehab	why no rehab	prosth	crutch	couns	exerc	using prosth	why not using prosthesis	difficulty with prosthesis	hope	live stock	crops	RNL	FIM	speed m/sec	comments
Mahole	48	M	A/E	mortar	8	N	soldier	N	no information	N	N	N	N	n/a	n/a	n/a	Y	Y	Y	19	91	n/a	two others injured, two killed by same mortar
Chiure	60s	M	hands, feet	leprosy	0	N	farmer	N	no information	N	N	N	N	n/a	n/a	n/a	N	N	Y	7	91	nd	he is dependent on his family
Regel	50s	M	B/K	bullet	0	N	servant	N	he cannot stand for long	N	Y	N	N	n/a	n/a	n/a	Y	N	Y	8	86	nd	kneels to farm in own field, daughter supports him, crutches from hospital
Uambo	48	M	B/K	mine	12	N	miner	Y	n/a	Y	Y	N	Y	no	stolen	n/a	Y	Y	Y	16	86	nd	works in own fields, difficulty to survive in rural districts, food and clothing scarce
Jose	25	F	B/K	mine	1	N	domestic/ farmer	Y	n/a	Y	Y	N	Y	always	n/a	stump pain	Y	Y	Y	18	86	nd	was a soldier, feels she has lost many things, left school
Maie	71	M	A/K	bullet	2	N	countryman	N	n/a	N	Y	N	N	n/a	n/a	n/a	Y	Y	Y	18	86	nd	on waiting list, eager for prosthesis so can carry items to/from fields, feels limited
Cossa	52	M	B/K	mine	6	Y	servant	Y	n/a	Y	Y	Y	Y	always	n/a	none	Y	Y	N	17	86	0 9	feels has lost a lot but is equal to others, feels co-workers don't regard him as equal, using old prosth - skin breakdown from new one
Chongo	49	M	A/K	bazuka	4	N	typist	Y	n/a	Y	Y	N	Y	sometimes	n/a	worn out, poor stability	Y	N	N	18	86	0 8	made to retire from gov't job after injury, now cannot afford to make ends meet
Ndlalane	31	M	A/K	mine	7	N	servant	Y	n/a	Y	Y	Y	Y	infrequent	n/a	stump pain	Y	N	N	19	86	1	rehab was useful - he can walk
Bambo	48	M	B/K	work	7	Y	fireman	Y	n/a	Y	Y	Y	Y	no	no longer fits	n/a	Y	N	N	16	86	0 8	lack of transport & accommodation to get 2nd prosthesis
Chachuaio	32	M	B/K	train	3	N	servant	Y	n/a	Y	Y	N	Y	always	n/a	broken	Y	N	N	14	86	1	can't afford to travel to have foot fixed, does not know if shelter, food available while at center
Julanhane	28	M	B/K	mine	2	N	domestic	Y	n/a	Y	Y	N	Y	no	stump pain	n/a	Y	Y	N	20	80	0 7	rec'd prosth in hospital in S. Africa, now unsure how to get a new one
Mulhui	33	F	B/K	mine	4	N	business woman	Y	n/a	Y	Y	N	Y	always	n/a	needs repairs, thought she had to pay	Y	N	N	16	86	1	feels limited, no job as business woman, got 2nd prosth in S. Africa, homemade socks
Muzimela	60	M	B/K	train	14	R	retired	Y	n/a	Y	Y	Y	Y	always	n/a	none	Y	Y	Y	16	86	1 3	rep for disabled, campaigns for rights of disabled
Nhazumela	69	F	A/K, B/K	train	0	N	makes mats	Y	n/a	Y	Y	N	Y	no	no longer has prostheses	n/a	no opinion	N	N	14	86	nd	had w/c in past, crawls on hands and knees
Matusse	71	M	A/K	bullet	1	Y	shoe-maker	N	no information	N	Y	N	N	n/a	n/a	n/a	Y	N	Y	14	86	0 7	crutches from hosp, need repair
Guambe	17	F	A/E	mva	0	N	domestic	N	no information	N	n/a	N	N	n/a	n/a	n/a	no opinion	N	N	22	88	n/a	bone overgrowth, never went to school
Matavele	62	M	B/K B/K	mine	6	R	admin Officer	Y	n/a	Y	Y	N	Y	sometimes	n/a	painful stump	N	N	Y	14	62	nd	usually uses one prosthesis as short stump hard to keep in socket, also uses w/c, is retired
Ubisse	63	M	A/E	train	3	R	fireman	Y	n/a	Y	n/a	N	N	no	broken	n/a	Y	N	Y	18	91	n/a	unhappy as not receiving pension
Cossa	35	F	B/K	mine	1	N	soldier	Y	n/a	Y	Y	N	Y	always	n/a	broken	Y	Y	Y	20	86	nd	injured when returning from battle, was unhappy but now trying to forget, works in the fields
Chaque	57	M	A/K	mine	8	Y	admin Officer	Y	n/a	Y	Y	N	Y	always	n/a	wounds	Y	N	Y	20	84	nd	local representative for disabled, wants to improve his life, feels loan program would help to purchase equipment needed to farm

Name	age	sex	level	cause	dep	paid work	skill	rehab	why no rehab	prosth	crutch	couns	exerc	using prosth	why not using prosthesis	difficulty with prosthesis	hope	live stock	crops	RNL	FIM	speed m/sec	comments
Macuvele	19	F	B/E B/E	electrocuted	0	n/a	student	Y	n/a	Y	n/a	N	N	no	no longer fits	n/a	Y	N	N	16	72	n/a	doesn't know where to go to get new prosthesis and has no one to take her
Machel	53	M	A/K	bullet	0	N	miner	N	has no transportation	N	Y	N	N	n/a	n/a	n/a	Y	N	Y	16	86	nd	rec'd crutches from hospital, when they broke bought 2nd pair from another who had 2 pairs. He is keen to get a prosthesis
Mulungo	20	M	A/K	mine	0	n/a	student	N	no idea how to get there, what happens there	N	Y	N	N	n/a	n/a	n/a	Y	N	N	15	86	nd	feels he is prepared psychologically, missed 2 years school when injured
Hobjana	35	M	B/K	mine	0	N	N	N	no vacancies in center	N	Y	N	N	n/a	n/a	n/a	Y	N	Y	16	86	nd	rec'd crutches from hospital, annoyed because can't find a job
Macuacua has a homemade prosthesis	46	M	B/K	mine	6	N	artisan	N	no transportation	N	Y	N	N	n/a	n/a	n/a	Y	Y	Y	12	82	nd	rec'd crutches from hospital, thanks god he is alive,
Magaia	24	F	B/E	machete	0	N	tradtional doctor	N	not interested	N	n/a	N	n	n/a	n/a	n/a	Y	N	Y	22	91	n/a	"bandits" cut off her arm and told her to give it to her boss as a message
Mabunda	30	M	B/K	mine	0	N	soldier	Y	n/a	Y	Y	N	Y	always	n/a	stump pain, needs repairs	Y	N	Y	*	86	nd	transport is problem for repairs now ihat he doesn't live in Maputo, relies on parents, works in fields
Chambale	21	M	B/K	mine	0	N	tradtional doctor	Y	n/a	Y	Y	Y	Y	always	n/a	stump pain, needs repairs	Y	Y	N	14	86	nd	cloth, wood, metal, foam prosthesis, would like new one
Mazuco knees with cap protectors - allow for hands free, works in fields	37	F	B/K B/K	mine	2	N	farmer	Y	n/a	Y	Y	Y	Y	no	broken	n/a	Y	Y	Y	14	91	nd	unsure how to get new prostheses, mobilizes on
Baloi	61	M	B/K	work	6	N	miner, artisan	N	unsure where to go, thinks he has to pay	Y	N	N	N	always	n/a	stump pain	Y	N	Y	18	86	nd	made own prosthesis form local materials wood, rubber, cloth, metal. Uses broken bike as scooter, works in fields, makes baskets
Javane	58	M	A/E	bullet	15	N	farmer	N	no transport or money, never big interest	N	n/a	N	N	n/a	n/a	n/a	Y	Y	Y	16	85	n/a	works one-armed in field and sells surplus
Hobjane	67	M	B/K	mine	2	N	miner, farmer	Y	n/a	Y	Y	N	Y	no	broken	n/a	Y	Y	Y	18	86	nd	accepts accident, works in field, no money for transport and no idea how to get new prosthesis, homemade cane and crutch
Curasse	45	M	A/K	mine	7	N	lighthouse keeper	N	no transportation, thinks he has to pay	N	Y	N	N	n/a	n/a	n/a	Y	N	N	16	86	nd	bought own crutches in South Africa
Zibia	60's	F	A/K	mine	0	N	domestic	N	no transportation, doesn't know where to go	N	Y	N	N	n/a	n/a	n/a	Y	N	Y	12	86	nd	rec'd crutches in hospital, was a day in bush after stepped on mine before found, another day to hospital
Sithole	17	F	B/E	fracture	0	Y	servant	N	no information	N	N	N	N	n/a	n/a	n/a	Y	N	Y	18	88	n/a	
Muluque	30	M	B/K A/K	mine	6	Y	soldier, business	Y	n/a	Y	Y	N	Y	no	moves faster on kneewith two crutches	n/a	Y	Y	Y	18	nd	nd	has accepted the event, protector-cap on knee
Mendes	28	M	B/K B/K	mine	5	N	soldier	Y	n/a	Y	Y	N	Y	no	broken	n/a	Y	Y	N	10	nd	nd	has accepted the event, protector-caps on knees, had w/c, also broken, cannot afford transport for repairs
Nhassevele	33	F	B/K B/K	mine	5	N	soldier	Y	n/a	Y	Y	N	Y	always	n/a	stump pain	Y	Y	Y	14	nd	nd	unhappy with lack of help from gov't
Rafael	***	M	B/K	mortar	5	N	soldier, farmer	Y	n/a	Y	Y	Y	Y	sometimes	n/a	stump pain	Y	Y	Y	22	nd	nd	feels well, considers accident a "normal event", uses 2 forearm crutches

Name	age	sex	level	cause	dep	paid work	skill	rehab	why no rehab	prosth	crutch	couns	exerc	using prosth	why not using prosthesis	difficulty with prosthesis	hope	live stock	crops	RNL	FIM	speed m/sec	comments
Afonso	32	M	B/K	mine	4	N	soldier	Y	n/a	Y	Y	N	Y	always	n/a	none	Y	Y	Y	20	nd	nd	doesn't work because he's disabled - annoyed he lost a part of his body
Amencio	23	M	A/K	mine	7	N	soldier	Y	n/a	Y	Y	Y	Y	always	n/a	none	Y	Y	Y	22	nd	nd	uses no aids
Orlando	35	M	B/K	mine	7	N	soldier, farmer	Y	n/a	Y	Y	Y	Y	no	broken	n/a	Y	N	Y	18	nd	nd	retrained as tinsmith - given tools, hand injured and cannot walk far with crutches
Zavale	50	M	chopart	mine	7	N	soldier	Y	n/a	Y	Y	N	Y	sometimes	n/a	none	Y	Y	Y	18	nd	nd	uses boot and 1 broken forearm crutch (cane)
Malimbe	48	M	A/K	mine	6	N	countryman	Y	n/a	Y	Y	Y	Y	always	n/a	none	Y	Y	Y	16	nd	nd	cannot drive his car. Same car as bianp - 2 killed, 3 injured
fo**********	35	M	B/K	bullet	4	N	soldier	Y	n/a	Y	Y	Y	Y	always	n/a	none	Y	Y	Y	16	nd	nd	injured during active fighting
Julai	31	M	B/K	mine	3	N	soldier	Y	n/a	Y	Y	Y	Y	always	n/a	stump pain	Y	N	N	16	nd	nd	receives pension, feels no possibility to improve life
Litorse	31	M	A/K	bullet	4	N	soldier	Y	n/a	Y	Y	N	N	no	couldn't use properly	n/a	Y	Y	Y	12	nd	nd	couldn't use prosth despite training, uses crutches - 2 wooden underarm
Bernardo	28	M	B/E	mine	3	N	soldier	N	HI could not make prosth, did not know about Maputo center	N	N	N	N	n/a	n/a	n/a	Y	Y	Y	16	nd	nd	told HI could not make a prosth for him, doesn't know about Maputo, how to arrange, can't afford transport
Bulato	32	M	B/K	mine	7	Y	soldier	N	lack of time	N	Y	N	N	n/a	n/a	n/a	Y	N	Y	18	nd	nd	received crutches from hospital
Jeralde	32	F	A/E	bullet	0	N	domestic/ soldier	N	not interested	N	N	N	N	n/a	n/a	n/a	Y	N	N	16	nd	nd	difficult to do her duty, thinks rehab will not help her
Xavier	34	M	fingers	mine	3	N	soldier	N	not interested	N	N	N	N	n/a	n/a	n/a	Y	Y	N	12	nd	nd	partial digit 3, complete digit 2
Sinai	26	F	B/E	mine	1	N	domestic	N	didn't know	N	N	N	N	n/a	n/a	n/a	Y	N	N	6	nd	nd	blind picked up a mine, led by niece
Ernesto	42	M	hand	mortar	6	N	unemployed	N	not interested	N	N	N	N	n/a	n/a	n/a	Y	Y	Y	14	nd	nd	refused work
Paulo	55-65	F	A/E	bullet	2	N	domestic	N	not interested	N	N	N	N	n/a	n/a	n/a	Y	Y	N	20	nd	nd	told she is not able to do the work
Jonas	66	F	A/K	bullet	0	N	domestic	N	no transport	N	Y	N	N	n/a	n/a	n/a	Y	Y	Y	16	nd	nd	had carpenter make 2 wooden crutches, injured on day 497 killed in village, doesn't know to get rehab
Pascoal	41	M	hand	mine	12	N	soldier	N	not interested	N	N	N	N	n/a	n/a	n/a	Y	Y	Y	20	nd	nd	pension insufficient to support family
Salvador	32	M	chopart	mine	0	N	soldier	N	thinks he has to pay	N	N	N	N	n/a	n/a	n/a	Y	Y	Y	14	nd	nd	feels well
Nambulete	41	M	A/K	mortar	7	N	soldier	Y	n/a	Y	Y	Y	Y	always	n/a	none	Y	N	N	18	nd	nd	faces many problems in life
Nhamazane	31	M	B/K	mine	2	N	soldier	Y	n/a	Y	Y	N	Y	always	n/a	none	Y	N	N	18	nd	nd	happy to have escaped death, crutches from Beira
Mateve	38	M	B/K	mva	3	N	soldier	Y	n/a	Y	Y	N	Y	sometimes	n/a	stump pain	Y	Y	Y	16	nd	nd	
Nhamuzoe	38	M	A/K	mine	4	N	soldier	Y	n/a	Y	Y	N	N	sometimes	n/a	broken	Y	N	N	16	nd	nd	thought he'd have to pay for repairs
Patsisso	31	M	B/K	mine	2	N	shoeshines, farmer	Y	n/a	Y	Y	Y	Y	always	n/a	none	Y	N	N	20	nd	nd	axillary crutches, would like forearm
Maphotse	26	M	A/E	bullet	8	N	soldier	N	not interested	N	n/a	N	N	n/a	n/a	n/a	Y	Y	Y	16	nd	nd	

Name	age	sex	level	cause	dep	paid work	skill	rehab	why no rehab	prosth	crutch	couns	exerc	using prosth	why not using prosthesis	difficulty with prosthesis	hope	live stock	crops	RNL	FIM	speed m/sec	comments
Hooo	46	M	A/K	mine	7	N	soldier	Y	n/a	Y	Y	Y	Y	no	burnt in fire	n/a	Y	N	Y	16	nd	nd	ID card burned in fire, thinks he needs to get new prosthesis, also cannot afford transport for new prosthesis
Kambule	48	M	A/K	work	8	R	servant	Y	n/a	Y	Y	N	Y	always	n/a	broken	Y	N	Y	16	nd	nd	feels well because of prosthesis; no money for transport to go have it repaired
Guilengue	28	M	B/K	mine	4	N	soldier	Y	n/a	Y	Y	N	Y	sometimes	n/a	very heavy	Y	Y	Y	20	nd	nd	feels happy, used to his life. Crutches were from hospital, prosthesis from Inhambane, works in his fields and fishes
Cumbane	33	M	B/K	bullet	10	N	soldier	Y	n/a	Y	Y	Y	Y	always	n/a	none	Y	Y	Y	14	nd	nd	wishes he had more tools, works in his field
Nhapoese	37	M	B/E, fingers	mine	6	N	soldier	N	not interested	N	n/a	N	N	n/a	n/a	n/a	Y	Y	Y	22	nd	nd	works in his own fields
Guirungo	45	M	B/K	bullet	10	N	soldier	Y	n/a	Y	Y	N	Y	always	n/a	stump pain	N	Y	Y	18	nd	nd	
Nquisse	34	M	A/K	mine	11	N	soldier, typist, shoemaker	Y	n/a	Y	Y	Y	Y	no	broken	n/a	Y	Y	Y	16	nd	nd	is going to Maputo next month for repairs or new prosthesis; injured by antitank mine - in bus, four others killed, two others injured
Zunguse	48	M	B/K	mine	6	N	soldier, farmer	Y	n/a	Y	Y	N	Y	no	broken	n/a	Y	Y	Y	18	nd	nd	works in fields, cannot afford transport to Maputo for new prosthesis or leave his fields
Simone	38	M	A/K A/K	mine	3	N	soldier	Y	n/a	Y	Y	Y	Y	no	broken	n/a	Y	N	Y	14	nd	nd	cannot afford to build house or get to Maputo for repairs to wheelchair or prostheses
Saio	34	M	A/E	bullet	6	N	soldier	N	no transportation	N	N	Y	N	n/a	n/a	n/a	Y	Y	Y	20	nd	nd	told locally couldn't make A/E prosthesis, can't afford transport to Maputo; suppport of father and church helped in initial suicidal period. Now farms and starts a small business
Sebastiao	37	M	chopart	mine	2	N	soldier, watch repair	N	told in Inhambane couldn't make Chopart prosthesis	Y	Y	N	N	always	n/a	stump pain	Y	Y	Y	18	nd	nd	rec'd crutches from hospital, made his own prosthesis from sheet metal
Xavier	29	M	A/K	mine	1	N	small business	N	lack of money	N	Y	N	N	n/a	n/a	n/a	Y	N	N	16	nd	nd	rec'd crutches from hospital, feels well despite difficulties, doing well with small business selling petrol, drinks, goods
Manhica	48	M	knee disartic	mine	1	N	soldier, farmer	Y	n/a	Y	Y	N	Y	always	n/a	broken	Y	N	Y	16	86	nd	was working in state-owned field that went bankrupt, prosthesis has no foot
Tembe	63	M	B/K	mine	4	R	soldier	Y	n/a	Y	Y	N	Y	sometimes	n/a	stump pain	Y	N	N	11	82	nd	doesn't use prosthesis in the rain, wants to go back to Malutuine to care for his fields but lacks money
Bambo	70's	M	A/K	infection	4	R	painter	Y	n/a	Y	Y	N	Y	sometimes	n/a	just uses # at home	Y	N	N	14	86	nd	very short stump
Matine	59	M	B/K	bullet	0	R	train worker	Y	n/a	Y	Y	N	Y	always	n/a	none	Y	N	N	13	82	nd	stump hurts in the rain
Matlombe	39	M	A/K	mine	4	N	miner	Y	n/a	Y	Y	N	Y	no	broken	n/a	Y	N	N	18	86	nd	states he will go back to center for new prosthesis, his company would not hire him back after the accident, he does his own business at home
Manhaia	32	M	B/K	mine	0	N	soldier	Y	n/a	Y	Y	N	Y	always	n/a	none	Y	N	N	14	86	nd	does not get military pension as accident was after demobilization
Chiboleque	50	M	A/K	gangrene	1	N	tractor driver	Y	n/a	N	Y	N	Y	no	currently being made	n/a	Y	N	Y	18	86	nd	plans to return to work once has prosthesis
Uambe	37	F	A/K	mine	2	N	farmer	Y	n/a	Y	Y	N	Y	sometimes	n/a	stump pain, infections	Y	Y	Y	14	86	nd	stepped on mine when going to field, worried about her fatherless children

Name	age	sex	level	cause	dep	paid work	skill	rehab	why no rehab	prosth	crutch	couns	exerc	using prosth	why not using prosthesis	difficulty with prosthesis	hope	live stock	crops	RNL	FIM	speed m/sec	comments
Chizambi	35	M	A/K A/E	train	6	N	train worker	Y	n/a	Y	Y	N	Y	always	n/a	none	Y	N	N	18	82	nd	lost his job, uses his A/E prosthesis only sometimes
Muandule	24	M	B/K B/K	mine	2	N	N	Y	n/a	Y	Y	N	Y	always	n/a	stump pain	Y	N	Y	16	87	nd	has wheelchair, feels helpless as he cannot find a job to support his family, states only injured one foot but surgeon cut off both
Isabel	36	F	knee disartic	train	4	N	vendor	Y	n/a	Y	Y	N	Y	no	broken	n/a	Y	N	N	14	91	nd	feels well despite difficulties
Americo	19	M	B/K	mine	3	N	N	Y	n/a	Y	Y	N	Y	sometimes	n/a	none	Y	N	Y	14	86	nd	doesn't know what to do to improve his life
Palembe	38	M	A/K	mine	6	N	shoe-maker	Y	n/a	Y	Y	N	Y	always	n/a	none	Y	Y	N	18	86	nd	
Fabiao	37	M	A/K	mine	7	N	farmer	Y	n/a	Y	Y	N	Y	always	n/a	none	Y	Y	Y	14	86	nd	works in his field, feels despised by society
Benzimo	42	M	B/K	mortar	0	N	soldier, sailor	Y	n/a	Y	Y	N	Y	always	n/a	stump pain	Y	N	N	18	86	nd	feels he should be compensated by the gov't
Tousia	52	M	knee disartic	bullet	7	Y	soldier	Y	n/a	Y	Y	N	Y	always	n/a	none	Y	Y	Y	18	86	nd	prosthesis from Zimbabwe as he had lived near the border, feels integrated into society
Chambale	67	M	A/K A/K	train	0	N	servant	N	not interested	N	N	N	N	n/a	n/a	n/a	Y	Y	N	10	91	nd	given wheelchair by ICRC but gave it back because he lives in sandy area and has no one to push him
Macuacua	47	M	A/E	mine	5	N	N	N	on waiting list	N	n/a	N	N	n/a	n/a	n/a	Y	N	N	18	91	nd	feels refused job because of his amputation
Macamo	38	F	A/E	mine	0	N	domestic	N	not interested	N	n/a	N	N	n/a	n/a	n/a	N	N	N	16	91	nd	feels limited
Cumbane	60's	F	A/K	snake bite	0	R	domestic	N	not interested	N	N	N	N	n/a	n/a	n/a	N	N	N	9	82	nd	relies on donations from people
Sotho	10	M	B/K	snake bite	n/a	n/a	student	N	no information	N	N	N	N	n/a	n/a	n/a	Y	n/a	n/a	n/a	86	nd	has one homemade crutch, hooks his stump around it to walk
Tivane	13	M	chopart	mine	n/a	n/a	student	N	no information	N	N	N	N	n/a	n/a	n/a	Y	n/a	n/a	n/a	91	nd	piling scrap metal, someone put landmine in pile and it exploded, many children killed. Wears piece of foam tied to stump with cloth